

&4 FRP[†] 6HQDWHL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPFLWHL +ROGV^L + 3DJH[¶] !! L RI

<HM[¶] L 6HQDWRL[¶] L \$VL , L LQGLFDWHL HDUOLHU^L ++ L DQG^L , L WKLQN^L WKLV^L ZDVL LQGLFDWHL LQ^L ++
LQ^L ++ L LQ^L WKLV^L PRUQLQJV^L WHWALPRQ[¶] L , L PHQWLQHG^L WKH^L FDHV^L ZLWK^L WKH^L
♂ LQDXGLECH[¶] L SURGXFLQJ^L ♂ LQDXGLECH[¶] ♂ L DQG^L WKDW^L ZDVL VRPHWKLQJ^L WKDW^L ZH^L
DRAWDOD^L LQWLDWHL[¶] L , L NQRZ^L WKHUH^L ZDVL VRPH^L TXHWLRQ^L WKDW^L 6HQDWRL[¶] &DUSHU^L
UDLVHGL^L LQ^L WKDW^L UHJDUG[¶]

7KDW^L ZDVL ERWK^L LQ^L UHVSHFW^L WR^L IHGHDO^L DQG^L WDWH^L YLRODWLRQ^L DQG^L ZH^L DRAWDOD^L
VRLQHG^L WKH^L WDWH^L RI^L 7H[DVL DQG^L WKH^L (3\$ L LQ^L WKDW^L HQIRUFPHQW^L DFLRQ[¶] L %W[¶] L
, YH^L VXEPLWHL^L IRU^L WKH^L UHFRUG[¶] L DVL \RX^L NQRZ[¶] L D^L OLWW^L RI^L FDHV^L ZKHUH^L ZMH^L
ZRUNHG^L ZLWK^L WKH^L :LOGOLIH^L &RPPFLWLRQ^L LQ^L 2NODKRPD[¶] L WKH^L '(4[¶] L DURXQG^L
♂ LQDXGLECH[¶] L PDWHLUV^L DQG^L HQIRUFPHQW^L RI^L RXU^L WDWH^L ODZV[¶]

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7KH^L ++ L LWW^L LQWLUHWLQJ[¶] L :KDW^L ZDVL WURXEOLQJ^L WR^L PDQ^L RI^L XV^L LQ^L WKH^L SUHYLRXV^L
DGPLQLWUDWLRQ^L ZDVL ZKHQ^L RI^L LFLOD^L ZLWKLQ^L WKH^L 2EDPD^L DGPLQLWUDWLRQ^L ZH^L
AR^L H[UDRUGLQDU^L CHQJWKV^L WR^L DYRLG^L GLVFORVLQJ^L WKHILU^L RI^L LFLOD^L ZULWHQ^L
FRPPXQLFDWLRQ^L XQGHU^L WKH^L)UHGRPL RI^L , QIRUPDWLRQ^L \$FW^L 7KLV^L LV^L WKH^L ODZ^L
WKDW^L DOORZV^L SXEOLF^L DFFHVV^L WR^L JRYHJQPHQW^L UHFRUGV[¶]

)RU^L H[DPSOH^L (3\$ L DGPLQLWUDWRL^L /LVD^L -DFNWRQ[¶] L DW^L WKH^L WLPH[¶] L XHGL^L DQ^L (3\$ L
HPDLO^L DFFRXQW^L XQGHU^L WKH^L QDPH^L RI^L 5LFKUG^L :LQGRU^L ++ L 5LFKUG^L :LQGRU[¶] L
DVL RSSRVHG^L WR^L KHU^L RZQ^L HPDLO^L DFFRXQW^L \$QGL VR[¶] L L L FRQILUPHG[¶] L ZLOO^L \RX^L
UHTUDLO^L TURPL WDNLQJ^L DQ^L VXFK^L DFLRQ^L WKDW^L PDNHV^L LW^L GLI^L LFXOW^L RU^L LPSRWLEOH^L
IRU^L WKH^L SXEOLF^L WR^L DFFHVV^L \RXU^L RI^L LFLOD^L ZULWHQ^L FRPPXQLFDWLRQ^L XQGHU^L WKH^L
)UHGRPL RI^L , QIRUPDWLRQ^L \$FW^L 358,77 L <HM[¶] L OU[¶] L &KOLUPDQ[¶] L \$QGL DVL^L , L
LQGLFDWHL^L LQ^L P^L RSHQLQJ^L WDWHPHQW[¶] L , L UHDQ^L EHOLHYH^L WKDW^L ♂ LQDXGLECH[¶] L
SDUWFLSDWLRQ[¶] L WLDQVSDUHQF[¶] L DQG^L UXCHPDNLQJ^L LV^L YH^L LPSRUWDQW^L DQG^L , L WKLQN^L
WKDW^L H[WHQGV^L WR^L WKLV^L PDWHLU^L DVL ZHOD[¶] L %\$55\$662 L , L ZLOO^L UHMUJH^L WKH^L
UHPLQGHU^L ++ L UHPDLQGHU^L RI^L P^L WLPH[¶] L 6HQDWRL[¶] &DUSHU[¶]

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7KDQNV[¶] L 7KDQNV[¶] L OU[¶] L &KOLUPDQ[¶] L :H^L ++ L DVL ++ L DVL ZH^L GLVFXWHL^L EHIRUH[¶] L
\RXUH^L SDUW^L RI^L ++ L , L WKLQN^L ++ L DW^L CHDW^L WKH^L ODZVXLW[¶] L OU[¶] L 3UXLW[¶] L , L WKLQN^L F
SHQGLQJ^L RQ^L WKH^L ++ L WKH^L (3\$V^L HIIRUW^L WR^L UHGXAH^L PHUFXUV^L HPLWLRQ^L TURPL
SRZHU^L SDQW[¶]

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWTH^L +ROGV^L + 3DJH[¶] ¶!RI^L

\$QGL ZH^L NQRZ^L WKDW^L ↑ !! L SHUFHQW^L RI^L RXUL QDWLRQV^L PHUFXUV^L HPLWLRQV^L FRPH^L
IURPL ++ L IURPL SRZHUL SODQW^L L 1RW^L QXFHDUL SODQW^L EXW^L JHQHDOO^L IRWLOL IXHO^L
SODQW^L L ODJHO\ L FRDOL ILUH^L SODQW^L L :H^L NQRZ^L WKDW^L WKHUH^L DUH^L PRUH^L ILVK^L
FRQXPSALRQL DGYLVRULHV^L LQ^L WKH^L 8[¶] 6[¶] L IRUL PHUFXUV^L WKDQ^L, L WKLN^L DOOL RAKHUL
FRQNDPLQDQW^L FRPELQHG^L LQ^L \RXUL KPH^L WDWHL RI^L 2NODKRPD[¶]

, L \RXL EHOLHYH^L WKDW^L WKH^L (3\$^L VKRXOG^L CRW^L PRYH^L IRUDUG^L RQ^L WKH^L ++ L WKH^L
OHUFXUV^L DQG^L \$LU^L 7R[LFV^L UXO^L L KRZ^L GR^L WDWHV^L FODQ^L XS^L PHUFXUV^L "L :KDW^L GR^L
\RX^L WKLN^L DUH^L WKH^L KHDWK^L LPDSFW^L RI^L PHUFXUV^L HPLWLRQV^L

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6HQDWRU^L, L DFWADOO^L KOYH^L CRW^L WDWHV^L WKDW^L, L EHOLHYH^L WKH^L (3\$^L VKRXOG^L CRW^L
PRYH^L IRUDUG^L RQ^L UHJXODWLQJ^L PHUFXUV^L RU^L ++ L RU^L DGRSWLQJ^L UXCHPDNLQJ^L LQ^L WKDW^L
UHJDUG^L 2XUL^L + L RXUL FKDOOHQJH^L ZDV^L ZLWK^L UHJDUG^L WR^L WKH^L SURFHUV^L WKDW^L ZDV^L
XHGL^L LQ^L WKDW^L FDMH^L L DQG^L KRZ^L LW^L ZDV^L CRW^L FRPSOLF^L ZLWK^L WKH^L WDWHV^L DV^L
GHILQH^L E\ L &RQJUHW[¶]

6R[¶] L WKHUH^L LV^L CRW^L DL WDWHV^L L QRU^L D^L EHOLHI^L WKDW^L, L KOYH[¶] L WKDW^L PHUFXUV^L L VLV^L
VRPHWKLQJ^L WKDW^L VKRXOG^L EH^L UHJXODW^L XQGHUL^L VHFWRQ^L ¶ ¶ + L DV^L DL KOJDUGRXV^L
DLUL SROOXWDQW^L, L KOYH[¶] L DV^L \RX^L NQRZ^L ++ L WKDW^L LV^L DL^L ++ L WKDW^L VHFWRQ^L GHDOV^L ZLWK^L
GLUHFWD^L KHDWK^L FRQFHQV^L RI^L RXUL FWL]HQV[¶]

7KDW^L WKH^L UHDVRQ^L ZK^L WKHUH^L LV^L FRQWROOHG^L WHFKQRORJ\ L WKDW^L LV^L YHUV^L
KHLJKWQHG^L LQ^L WKDW^L WDWHV^L L OD[LPXP^L \$FKLHYDEOH^L &RQNLRO^L 7HFQRORJ\ L
AKDW^L + L WKDW^L LV^L UHTXLHG^L L \$QGL VR[¶] L, L EHOLHYH^L WKDW^L PHUFXUV^L VKRXOG^L EH^L GHDOV^L
ZLWK^L DQG^L GHDOV^L ZLWK^L LQ^L DL PHDQLQJ XOL^L ZD\ L E\ L WKH^L (3\$[¶] L EXW^L VXEHW^L WR^L WKH^L
SURFHUV^L WKDW^L WKLVL ERG^L KOV^L RXWOLQHG[¶]

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6HQDWRU^L ♂ LQDXGLEOH^L L DQG^L, L ZRUNHG^L WRJHWHU^L IRUL DL QXPEHUL RI^L \HDUV^L RQ^L
&CHDU^L 6NLHV^L CHJLVODWLQ[¶] L 7KH^L *HRUJH^L %XV^L \$GPLQLWUDWLQ^L KDG^L SURSRVHG^L
&CHDU^L 6NLHV^L GHDOLOQJ^L ZLWK^L VAOIXUL GLR[LGH^L L QWURXV^L R[LGH^L L DQG^L PHUFXUV[¶] L \$QGL
VHYHDO^L FROHDJXHV^L RI^L P\ L RZQ[¶] L LQFOXGLQJ^L 6HQDWRU^L \$CH[DOQHUL ZRUNHG^L RQ^L
CHJLVODWLQ^L VLPLQDU[¶]

2QH^L RI^L WKH^L GLIHHQFH^L EHWHHQ^L ZKDW^L ZH^L SURSRVHG^L DQG^L WKH^L %XV^L
\$GPLQLWUDWLQ^L SURSRVHG^L L ZDV^L ZLWK^L UHSHFW^L WR^L UHGFLQJ^L WKH^L HPLWLRQV^L RI^L
PHUFXUV[¶] L, L GROW^L UHFDOO^L H[DWD^L L ZKDW^L WKH^L %XV^L SURSRVDO^L FDOOHG^L IRUL LQ^L WHUPV^L
RI^L HPLWLRQ^L UHGFLQ^L IURPL^L ++ L IURPL SRZHUL SODQW^L L DQG^L RAKHUV^L IURPL
PHUFXUV^L EXW^L LW^L ZDQW^L YHUV^L DJJUHMVLYH[¶]

KWS ↑ ↑ ZZZ FT FRP[†] GRF[†] FRQJUHWLRQDOWDQFULSW^{"¶} + SULQWWUXH ¶ + !!

&4 FRP[†] 6HQDWL (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWHL^L +ROGV^L + 3DJH[¶] ¶¶RI

, L SURSRMHGL D^L ++ L D^L UHGXFALRQL RI L ← !! L SHUFHQW RYHUL D^L FHJADLQL QXPEHUL RI L VHUV[¶] L
6HQDWRL \$CH[DQGHUL VDLGL KH^L WKRXJKW^L WKOW^L IRONV^L FRXOG^L GR^L EHWHUL WKDQL ← !! L
SHUFHQW^L DQG^L KH^L SURSRMHGL !! L SHUFHQW UHGXFALRQL VFKHGXH[¶]

:H^L KOG^L OWHOOV^L KHJH^L DW^L WKLV^L WDECH[¶] L ZLWQHW^L TURPL XALOLW[¶] L DQG^L RCH^L
ZLWQHW^L TURPL D^L WUDGH^L DWRFLDWLRQ[¶] L UHSUHMQWLQJ^L WHFKQRORJ\ L FRPSDQLHV^L
WKOW^L IRFXVHG^L RQ^L UHGXFHQJ^L HPLWLRQV^L RI L KOUPIXO^L VXEWDQFH^L LQWR^L RXU^L DLU^L
DQG^L WR^L RXU^L ZDWHU[¶] L (YHJ^L XALOLW^L UHSUHMQWLQH^L VDLG[¶] L | :H^L FDQQRW^L PHW^L DQ^L
← !! L SHUFHQW UHGXFALRQL LQ^L PHUXU[¶] |

7KH^L ZLWQHW^L TURPL WKH^L WUDGH^L DWRFLDWLRQ^L UHSUHMQWLQJ^L WKH^L + L WKH^L LQGXWU[¶] L
LQ^L ZKLFK^L ++ L DQG^L WKLV^L LV^L MXW^L WR^L WU^L WR^L UHGXFH^L HPLWLRQV^L OLNH^L PHUXU^L ++ L VDLG
QRW^L RQO^L FDQ^L ZH^L PHW^L ++ L LQGXWU^L FDQ^L ZH^L PHW^L WKRVH^L UHGXFALRQL RYHUL WKH^L
WALSXODWHL^L SHURGL RI L WLPHQ^L WKH^L FDQ^L H[FRHGL WKHP[¶] L \$V^L LW^L WLQVL RXW^L L WKH^L
H[FRHGL WKHP[¶]

7KH^L DFWDOOV^L GLGL EHWHUL WKDQL ← !! L SHUFHQW[¶] L 6KH^L GLGL EHWHUL WKDQL !! L SHUFHQW[¶] L
7KH^L GLGL LW^L PRU^L TXLFNOV^L WKDQL , L WKLO^L ZDV^L DQWFLSDWHL[¶] , V^L WKOW^L LQWUXFALYH^L
AR^L \RX^L LQ^L DQ^L ZD^L RQ^L WKLV^L TXHVALRQ"

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,V^L WKOW^L ZKOW^L ,PL VRUV[¶]

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,QWUXFALYH^L WR^L \RX[¶] L ,V^L WKHUL DQ^L CHMRQL WKHUL IRU^L \RX^L RU^L IRU^L XV^L TURPL WKOW^L
H[SHULHQFH"

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:HOO[¶] L DVL ,YH^L LQGLFDWHL 6HQDWRL[¶] L , L UHDOOV^L EHOLHMH^L WKOW^L LW^L LPSRUWDQW^L WKOW^L LW^L
D^L SDUQHUVKLS^L EHWHQ^L WKH^L (3\$^L DQG^L WKH^L WDWHV[¶] L , L PDGH^L UHIIHQFH^L WR^L WKH^L
SKUDM^L HDUOLHU[¶] L | QDWLRQDOL WWDQGDUGV^L DQG^L QHLJKERUKRRG^L VROXALRQ[¶] |

, L ++ L , L WKLO^L WKOW^L WKOW^L VKRZV^L WKOW^L WKH^L (3\$^L FDQ^L EH^L LQYROYHG[¶] L DQG^L VKRXOG^L EH^L
LQYROYHG[¶] L LQ^L VHWLQJ^L WWDQGDUGV[¶] L VHWLQJ^L REMHRALYH[¶] L VFLHQFH^L EDVHGL
WWDQGDUGV[¶] L WR^L LPSURYH^L DLU^L TXDOLW^L DQG^L SURWHFWLQJ^L WKH^L KHDQW^L RI L RXU^L
FLW^L JHQ[¶] L EXW^L DOVR^L EH^L D^L PHDQLQJXO^L SDUQHUL ZLWK^L WKH^L WDWHV^L LQ^L
LPSCHPHQWLQJ^L WKRVH^L ODZV[¶]

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&4 FRP 6HQDWL (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH P P LRI

/HW PH L MWL WRS L RX L WKHUH L SCHDH L 7KH L ++ L , L OLNH L WR L VD\ L | , Q L DGYHUVW L OLF RSSRUWKQWL | L 7KDW L CRW PH L 7KDW L \$OEHJW L (LQWHLQ L %XW WKH L ++ L WKHUH L LV L HFRGRPLF L DGYDQNDJH L WR L EH L JDLQHG L TURPL FOHDOLQJ L XS L SROOXWLRQ L :HYH L VHQL LM

7KHUHV L FRPSDQLHV L WKDW ZRUNHG L RQ L WKH L PHUFXU L HPLWLRQV L WKH L PDGH L PRQH L GRLQJ L WKDW ++ L LQWDOLQJ L WKDW WHFKQRORJ L DURXQG L WKH L ZRUOG L 6LPLQDUO L \KHUH L KDV L EHQ L PRQH L PDGH L TURPL 'LHMHD L (PLWLRQ L 5HGXFLRQ L \$FW L 7KH L \$PHULFDQ L WHFKQRORJ L UHGXFQJ L HPLWLRQV L TURPL ++ L TURPL ROGL GLHMHOL ++ L GLHMHOL HQJLQH

+DYH L RX L ++ L GR L RX L HYH L JLYH L DQ L WKRXJKW WR L WKDW L WKH L HFRGRPLF L JDLQ L WKH L HFRGRPLF L DGYDQNDJH L WKDW FDQ L ICRZ L TURPL GHYHORSLQJ L WKDW WHFKQRORJ L WR L UHGXFH L HPLWLRQV L , L DFWDOO L WKDN L WKDW VRPH L UHJXODALRQ L FODUL UHJXODALRQ L ++ L DQG L , OOL QHML IRUHW D L FRQHUVWALRQ L ZH L KDG L ZLWK L ++ L ZKHQ L ZH L ZH L ZRUNLQJ L RQ L RXU L &CHDUL 6NLHV L CHULVODALRQ L DGGUHWLQJ L IRUHLJQ L SROOXWQW L PHWLRQ L ZLWK D L EXQFK L RI L XALOM L &(2V L DQG L ZH L WDNLQJ L DERXW KRZ L WR L JR L IRUDUG L RQ L WKLV L ++ L WKDW LWXH

\$QG L DW L WKH L HQG L RI L WKH L FRQHUVWALRQ L RQH L RI L WKH L XALOM L &(2V L , L WKDN L LW L ZD V L QDQGLECH L ROGHU L IHOORZ L DQG L , L GRW L UHPHPEH L ZKHUH L KH L TURPL L EXW KH L VDLG L ++ L DW L WKH L HQG L RI L WKH L GD\ L KH L VDLG L | +HUML ZKDW RX L QHGL WR L GR L | L ++ L RX L XV L &RQJUHW L &3\$ L ++ L | <RX L QHGL WR L WHOD L XV L ZKDW WKH L UXOH L DUH L JRQD L EH L <RX L QHGL WR L JLYH L XV L VRPH L WLPH L VRPH L ICHLELOM L \$QG L RX L QHGL WR L JHW L RXW L RI L WKH L ZD L | L 7KDW L ZKDW KH L VDLG

7HOD L XV L ZKDW WKH L UXOH L DUH L JRLQJ L WR L EH L JLYH L XV L VRPH L ICHLELOM L DQG L JHW L RXW L RI L WKH L ZD L | L 'R L RX L EHOLYH L WKDW DFWDOO L VHWLQJ L WDQGDUG L ++ L ZKDW HYH L LW L KSSHQ L WR L EH L ZLWK L PHUFXU L UHGXFALRQ L ZLWK L QDQGLECH L WDQGDUG L ZLWK L TXH L HI L FLHOFV L UHTXLUHPHQW L WKDW DFWDOO L VHWLQJ L WKRML L WDQGDUG L FDNLQJ L LW L FODUL L WKDW ZH L DFWDOO L SURYLGH L FHUNDLQW L DQG L DFWDOO L RSHQ L WKH L GRRU L IRU L HFRGRPLF L ++ L HFRGRPLF L SURGXFLYLM L ++ L SURGXFLRQ

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, L GR L 6HQDWL L DFWDOO

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&DQ L RX L JLYH L XV L DQ L H[DPSOH L ZKHUH L RX L DFWDOO L VD L WKDW KSSHQ L ++ L ZH L KHOSIXO L LQ L FDNLQJ L WKDW KSSHQ

&4 FRP[†] 6HQDWHL (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPPLWHL^L +ROGV^L + 3DJH[¶] ¶LRI^L

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,Q^L 2NODKRPD[†] + L WKLVL LV^L QRM^L ZLGH^L NCRZQ^L EHFDXH^L ZH^L DUH^L NCRZQ^L DV^L DQ^L RLO^L
DQG^L JDV^L WWDW[¶] L EXW⁺⁺ L EXW^L LQ^L WKH^L JHCHUDWLQ^L RI^L HOHWULFLW^L LQ^L RXU^L WWDW[¶] L ¶ →
SHUFHQW^L RI^L RXU^L HOHWULFLW^L LV^L JHCHUDW^G WLURXJK^L ZLOG[¶] L \$QG^L VR[¶] L ZHYH^L KDG^L DL^L
KHDY^L HPSKDMV^L RQ^L UHQHZDEOHM[¶] L \$QG^L WKDW^L SXW^L XV^L LQ^L WRS^L WKUH^L RI^L WKH^L
FRXQWU[¶]

\$QG^L VR[¶] L RXU^L FRUSRUDWLQ^L FRPPLWLRQ^L ++ L , L DFWDODO[\] L KOYH^L REOLJDWLQV^L WR^L
DSSHDU^L EHIRUH^L WKH^L &RUSRUDWLQ^L &RPPPLWLRQ[¶] L LQ^L WKH^L VHWLQJ^L RI^L UDWH[¶] L 6R[¶] L
DV^L XWLOLW^L FRPSDQLHV^L DUH^L ORNLQJ^L DV^L PRGLI\ LQJ^L WKHLU^L IDFLOWLHV^L WR^L FRPSO[\]
ZLWK^L HQYLURQPHQDO^L WWDW[¶] L WKHUH^L LV^L JUHDW^L GLVFXWLQ^L DERXW^L KRZ^L WR^L GR^L
WKDW^L PRUH^L HFRQRPLFDOD[¶] L DQG^L WR^L DFKLHYH^L WKH^L ++ L WKH^L DLU^L TXDOLW^L REVMHWLYHV^L
ZH^L KOYH[¶] L XQGHU^L (3\$ L PDQGDW^HV^L DQG^L WWDW^L PDQGDW^HV[¶]

\$QG^L VR[¶] L , YH^L EHQ^L YHUA^L LQYROYHG^L LQ^L WKDW^L SURFH[¶] L WLURXJK^L WKDW^L SDUW^L RI^L P^L
RIILFH[¶]

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7KDQNV[¶] L 7KDQNV[¶] L OU[¶] L &KDLUPDQ[¶]

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7KDQN^L \RX[¶] L 6HQDWRL^L &DUSHU[¶] L 6HQDWRL^L &DSLWR[¶]

&\$3,72 L

7KDQN^L \RX[¶] L OU[¶] L &KDLUPDQ[¶] L 7KDQN^L \RX^L DJDLQ^L EHIRUH^L EHLQJ^L EHIRUH^L XV^L DQG^L
FRQJUDAKODWLQV^L RQ^L \RXU^L QRPLQDWLRQ[¶]

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7KDQN^L \RX[¶] L 6HQDWRL[¶]

&\$3,72 L

\RX^L NCRZ[¶] L , L WKLQN^L WKDW^L DV^L \RX^L FDQ^L WHOO^L IURP^L WKLVL FRPPLWHL^L DQG^L UHDOD[\] L WKH^L
FRXQWU[¶] L LV^L GLYLGHG^L RQ^L D^L ORW^L RI^L WKH^L LWXHV^L LQ^L DQG^L DURXQG^L LQYROYLQJ^L ZKDW^L
\RXUH^L HQHDYRULQJ^L WR^L KHDGOLQH^L KHUH^L DV^L WKH^L (3\$ L %XW^L , L WKLQN^L WKDW^L
XQGHUWDOGLQJ^L RQH^L DQRKHU^L LV^L HMLUHPO[\] L LPSRUWDQW^L QR^L PDWHU^L KRZ^L PDQ^L
ALPHV^L , L PLJKW^L VD^L WKH^L VDPH^L WKLQJ^L DQG^L VRPHERG^L HOM^L RQ^L WKH^L RAKHU^L VLGH^L
PLJKW^L VD^L WKH^L VDPH^L WKLQJ[¶]

&4 FRP 6HQDWL (QYLURQPHQW DQGL 3XEOLF :RUNV &RPPPLWHH +ROGV + 3DJH ¶ ¶RI

,W JLYHV PHL DL JUHDWUL XQHUVWQGLQJ RI L ZKHUL WKHV L OLYH L DQGL KRZ L WKHV L + + L
KRZ L WKHV L WKLN L WKHL EHWW ZDVL WR L SXUVXH L HQYLURQPHQWDL LWXHV L DUH L 6RQ L LQ L
AKHL FURZGL WKDW MRLQHGL XV L KHUL DMWUL OXOFK L DUH L VHYHUDO L FRDO L PLQHUV L ZKL
AUDYHOGL DOOL PRUQLQJ L + + L KOYH L EHQL ZDLWQJ L LQ L WKHL KDOOL DQGL PDGL VRPH L
QHZ L IULHQGV L LQ L WKHL DXGLHQFH L WKHV L DQGL , L ZDQW WR L WKDN L WKHL IRU L FRPLQJ

%HFDXVH L WKRVL DUH L WKHL IDFHV L RI L WKHL LWXHV L WKDW , L WU L WR L DGGHW L ZKHQ L
ZHUL WDONLQJ L DERXW WKHL GLI IHHQW IDFHW L RI L WKHL UHJXDWUL HQYLURQPHQW
AKDW ZH L VHH L WKDW L EHQL SXW IRUNK L RYHUL WKHL ODW VHYHUDO L \HDV

6R L WKLV L TXHMLRQV L IRU L \RXL DOO L , Q P L YHU L ILLUW KHDULQJ L DV L DL 8QWHLG L 6WDWHL
6HQDWUL RQ L WKLV L FRPPLWHH L ZH L KDG L WKHL \$WLWWDQW \$GPLQLWLDWRU L -DCHW L
OF&DEH L VKHL FDPH L WR L WHWLT \ L DERXW (3\$ L &2 L UXCHV

:KHQ L , L SUHWHL KHUL DERXW ZK L LQ L WKHL SXEOLF L PHWALQJV L RQ L WKHL H L WULQJ L
SODQW UXCHV L (3\$ L KDG L CRW ERWKHUHG L WR L FRPH L WR L :HWW 9LUJLQD L RU L IRU L WKDW
PDWULFHV L DQ L RI L WKHL RAKHUL WDWHL WKDW PRW KHDYLO L UHD L RQ L FRDO L IRU L
HOHWULFW L JHQHULWLRQ L WKLV L LV L ZKDW VKHL VDLG L \$QGL L TXRWH L | :H WULHG L WR L
ZKHQ L ZH L ZHUL VFKHGOLQJ L QDWLRQDO L OHYHOL PHWALQJV L ZH L ZDQWHLG L WR L KOYH L
AKRVL LQ L ORFDWLRQV L ZKHUL SHRSCH L ZHUL FRPIRUWDECH L FRPLQJ

:HOO L OU L \$WRLQHV L *HQHUDO L , L ZDQW \RX L WR L EH L FRPIRUWDECH L FRPLQJ L
DQ ZKHUL LQ L WKLV L FRXQWUL WR L WDON L DERXW + + L ZKHUKHUL IWW L 5KRQH L , VDQGL RU L
ZKHUKHUL IWW L :HWW 9LUJLQD L \$ODMD L + + L SHRSCH L QHGL WR L NQRZ L WKDW \RXUH L
OLWHLQJ L DQGL \RX L FDUL L DQGL WKDW \RXUH L XQHUVWQGLQJ L WKHL UDPL L FDWLRQV L
IRU L WKHL GHFLVLRQV L WKDW \RX L PDNH

6R L WKLV L GLQQW VWW YHU L ZHOO L IRU L PH L :H L KDG L DL PHWALQJ L DMWUL WKDW LQ L
%HNOH L :HWW 9LUJLQD L ZKLFK L LV L WKHL ELUWKSODFH L RI L WKHL UDQNLQJ L PHPEHU L
DQGL ZH L KDG L %R L &RSCH L WKHL ZKRL ZDVL DL ODLG L RI L L FRDO L PLQHUV L + H L WDONG L
DERXW DOOL WKHL KOUWKLSV L RI L KLVL IULHQGV L DQGL QHLJKERUV

:H L KDG L WKHL FRXQW L FRPPLWLRQHUL ZKR L WDONG L DERXW WKHL ORW L RI L UHYHQXH L
ARL WKHL FRXQW L DQGL KRZ L IWW L PSDWALQJ L WKHL VFKRROL VVWHPV L DQGL WKHL UHD L
HWWDWHL YDOXH L DQGL WKHL EDQNUXAFLHV L RI L DOOL RI L WKHL GLI IIFXQW FRDO L FRPSDQLHM L
DQGL SHRSCH L ZKR L KOYH L EHQL RXW RI L ZRUN

6R L , L ZRXOG L PSDORUH L \RX L WR L FRPPLW WRGD L WR L YLW L :HWW 9LUJLQD L ERWK L VLGHV L
RI L :HWW 9LUJLQD L DQGL WR L WDON L WR L RXU L FRDO L PLQHUV L DQGL WKHL L IDPLOLHV L 7R L WDON L
DERXW ZKDW WKHL MRE L DQGL HFRQRPLF L PSDWALQ L DQGL KRZ L ZH L FDQ L ZRUN L
ARJHWKHUL ZLWK L ERWK L VLGHV L WR L WU L WR L JHW WR L WKHL LQHQHGL JRDO L RI L FOHDQHUL DLU L
DQGL FOHDQHUL ZDWHU

&4 FRP[†] 6HQDWL (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPILWHL^L +ROGV^L +3DJH[¶] ¶L[¶] RI^L

358,77 L

6HQDWU[¶] L , L UHDQO\ L DSSUHFLDWH^L \RXL VKDULQJ^L WKDW^L DQG^L WKDW^L WKH^L UHDVRQ^L , L
PHQWLRLQ^L LQ^L P\ L RSHQLQJ^L WDWPHQW^L WKH^L LPSRUWDQFH^L RI^L OLWHLQJ^L DQG^L
CHDGLQJ[¶] L 7KLVL SURFH^L WKDW^L , YH^L EH^L QL^L D^L SDJW^L RI^L REYLRXO\ L LVL YH^L GHZ[¶] L EXW^L , L
VSHQW^L WLPH^L ZLWK^L HDFK^L RI^L \RX[¶] L PDQ^L RI^L \RX[¶] L LQ^L LGGLYLGXO^L PHW^L LQJV^L DQG^L
6HQDWU^L *LOOLEUDQG^L WDONHG^L DERXW^L LWXHV^L WKDW^L ZHU^L LPSRUWDQW^L WR^L KHU[¶] L
DURXQG^L &(5&/\\$¶

\RX^L FLWHL^L FRQFHUQ^L DQG^L LWXHV^L WKDW^L DUH^L LPSRUWDQW^L WR^L \RX^L LQ^L :HW^L
9LUJLQD[¶] L , L WKLQNL LWW^L DL YH^L LPSRUWDQW^L LI^L FRQI LUPHGL^L DV^L GPLQLWLDWRU^L WKDW^L , L
VSHQG^L WLPH^L UHSRQGLQJ[¶] L CHDULQJ[¶] L DQG^L OLWHLQJ^L WR^L \RX^L DQG^L \RXU^L
UHVSHALYH^L WDWPHV^L DQG^L WU\ LQJ^L WR^L EH^L KHOSIXO^L ZLWK^L UHJDUG^L WR^L WKH^L
HQYLURQPHQWDO^L LWXHV^L WKDW^L \RX^L IDFH[¶]

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7KDN^L \RX[¶] L 7KDN^L \RX[¶] L WKDW^L PDQV^L DL CRM[¶] L 7KDN^L \RX[¶] L , L ZRXOG^L OLN^L WR^L JHW^L
VRPH^L FODUL^L LFDWLRQ^L RQ^L DL WRSLF^L WKDW^L NLQG^L RI^L KDV^L EH^L QL^L FRPLQJ^L XS^L DQG^L
FRPLQJ^L XS^L DERXW^L KRZ^L PDQ^L WLPHV^L \RX^L DV^L WKH^L \$WRUQH^V L *HQHUDO^L KDYH^L
VXHG^L WKH^L (3\$^L \$QG^L \RX^L EHJDQ^L \RXU^L WDWPHQW^L E\ L VD\ LQJ^L WKDW^L | 7KH^L UXOH^L
RI^L ODZ^L LV^L YH^L LPSRUWDQW^L WR^L \RX[¶] |

\$QG^L WKH^L \RX^L WDONHG^L DERXW^L VHYHUDO^L RI^L WKH^L FDHM[¶] L DQG^L SUREDEO\ L PRW^L RI^L
WKH^L FDHM^L WKDW^L \RX^L EURXJKW^L IRUZDUG[¶] L LVL CRM^L FKDQHQLQJ^L WKH^L UHJDUGLQV^L VR^L
PXFK^L DV^L WKH^L SURFH^L RU^L ZHAKHJU^L WKH^L UXOH^L RI^L ODZ^L KDV^L EH^L QL^L RYHUVWHSHG^L LQ^L
WKH^L ERXQGDULHV^L RI^L WKH^L (3\$^L KDV^L EH^L QL^L WKH^L ++ L LQH^L RI^L &RQJUHW^L E\ L
CHULVODALQJ^L WR^L WKH^L (3\$^L KDV^L EH^L QL^L RYHUVWHSHG[¶]

\$QG^L WKH^L FRXUAW^L KDYH^L DJUHGL^L LQ^L VRPH^L FDHM[¶] L WKDW^L WKLV^L LV^L WKH^L FDHM[¶] L &RXOG^L
\RX^L NLQG^L RI^L UHWDWH^L WKDW^L SRVWLRQ^L RQ^L WKH^L ++ L RQ^L WKH^L GLI1HJHQW^L DFWLRQ^V"

358,7 L

:HO[¶] L 6HQDWU[¶] L DV^L , YH^L LQGLFDWHL[¶] L , L WKLQNL LQ^L UHSRQH^L WR^L 6HQDWU^L 6XOOLYDQ[¶] L
SUREDEO\ L PRUH^L VR^L WKDQ^L PRW^L WDWPHV^L WKDW^L DUH^L SDWHL^L E\ L &RQJUHW[¶] L WKLV^L
ERG^L KDV^L UHRJQLJHG^L WKH^L YH^L LPSRUWDQW^L DQG^L YLEUDQW^L UROH^L WKH^L WDWPHV^L SODA^L
LQ^L SDJQHUMKL^L ZLWK^L WKH^L (3\$^L DW^L LPSOHPHQW^L DQG^L HQIRUFLQJ^L RXU^L
HQYLURQPHQWDO^L WDWPHV[¶]

\$QG^L PDQ^L RI^L \RX^L KDYH^L WDONHG^L DERXW^L WKDW^L LQ^L \RXU^L RI\ L FH[¶] L +RZ^L \RXU^L '(4^L
ZRUNV^L DW^L WKH^L 5HJLQDO^L \$GPLQLWLDWRU[¶] L \$QG^L ++ L DQG^L ++ L VR^L ZHQL^L ZH^L WDON^L DERXW^L
UXOH^L RI^L ODZ^L DV^L \RX^L GHDL^L ZLWK^L PHUFXU[¶] L DV^L \RX^L GHDL^L ZLWK^L &2^L L DV^L \RX^L GHDL^L

KWS ↑ ↑ ZZZ[¶] FT[¶] FRP[¶] GRF[¶] FRQJUHWLRQDQWDFQHULSW "¶" L SULQWVW[¶] ¶ + !!

&4◀ FRP↑6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L +HE 3DJH ¶ ¶L|R! L

ZIWK L ZDWHU L LWXHV L DURXQG L ZKDW L LV L WKH L GHILQWLRLQ L DQG L LQ L WKRML L FDWML LWW L
LPSRUWDQW WKDW \RX L GR L VR L FRQVLWHLQW ZIWK L WKH L IUDPHZRUN L WKDW L EHQL
HWADEOLVKHG L E\ L WKLV L ERG\ L DQG L LWW L UHMSHFHG

%HDXVH L WKDW JLYHV L FRQILGHQFL WR L WKH L SHRSCH L DU L UHJXODWLQJ L \RX L NORZ\ L
ZHQL \RX L KOYH L DQ L DGPLQLWLDALYH L DJHQFL RI L DQ L WSH L WKDW DFWL
LQFRQVLWHLQW RU L WULHV L WR L HQDWH L LWW L DXWKRULM\ L LWW UHDOO\ L GRHVW L QVSLUH L
FRQILGHQFL LQ L WKRML WKDW DU L UHJXODWLG

\RXUH L VHLQJ L DL PDWHL L RI L SLFNQJ L ZLQHUV L DQG L ORHVW\ L DQG L EHLQJ L DJDLQW L
FHJWDLQ L WKLQJ\ L DV L RSSRMHG L WR L SURWHLWLQJ L SHRSCH L DQG L VR L WKDW UXCH L RI L OZL L V L
QRW VRPHWKLQJ L WKDW L DFDGHLFL LQ L P\ L YLHZ L ,V L QRW VRPHWKLQJ L WKDW L MXW L
CHUDOI L , L WKLQJ L LWW L LPSRUWDQW VR L HQXULQJ L JRRG L RXWFRPHV L DV L IDU L DV L
LPSURYLQJ RXU L DLU L DQG L SURWHLWLQJ RXU L ZDWHU

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7KDQNL \RX

%\$55\$662 L
6HQDWU L :KLUWKRXVH

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7KDQNL \RX\ L &KOLUPDQ\ L OU\ L 3UXLW\ L ZHQL ZH L CHW L RI L ZH L ZHU L WDNLQJ L DERXW L
AKLQJV L WKDW L WR L TXRWH L WKH L &KOLUPDQ\ L | PLJKW SODFH L WR L \RX L LQ L DL FRQIOFW RI L
LQWHLHMW L EXW KOYH L QRW EHQL GLVFORHG| L DQG L ZH L ZHU L WDNLQJ L DERXW WKH L
GDUN L PRQH L RSHUDWLQ L WKDW VXSSRUW L WKH L 5HSXEOLFQ L \$WRUCH\ L *HCHUDOV L
\$WRFLDWLRQ

%HIRUH L ZH L JHW EDNL LQWR L WKDW L CHW PH L DN L \RX L WKLV L DV L DL KISRAKHULFDO\ L L L \RX L
KDG L UDLVHG L VLJQL LFQDW DPRXQW L RI L PRQH\ L IRU L WKH L 5XCH L RI L /DZ L 'HIHQH L
)XQG L IURP L FRUSRUDWLQV L ZKR L ZLOO L EH L VXEHW WR L (3\\$V L UHJXODWLQ\ L EHIRUH L
(3\\$ L ZIWK L PDWHL L EHIRUH L (3\\$ L PLJKW WKDW SODFH L \RX L LQ L DL FRQIOFW RI L
LQWHLHMW

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&4 FRP 6HQDWL (QYLURQPHQW DQGL 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH P P L RI L

7KH L ++ L WKH L (3\$ L HWKLFV L FRXQFLO L KDV L VDLG L ++ L DQGL EV L WKH L ZD \ L WKHM L DUH L
FDUHUL LQGLYLGDOV L DV L \RX L NQRZ L 6HQDWLQ L \$GMWALQJ L DL IHZ L LV L DL FDUHUL
SHMRQL DW L (3\$ L HWKLFV L DQGL VR L DV L WKH\YH L UHYLHZHG L WKHM L SRWHQALDO L
FRQIOLFW L WKH L ++ L WKH L KDYH L ++ L ,YH L GLVFORMHG L DOOL HQWLWLV L WKDW L ,YH L EHQL
DI I LODWHL ZLWK L ++

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, L XQGHUWWDQG L WKDW L EXW L ,P L DMNLQJ L \RX L LI L \RX L WKLN L LW L PLJKW L SDFH L \RX L LQ L DL
FRQIOLFW L RI L LQWLUHW L EHFDXVH L ZH L ERWK L XQGHUWWDQG L WKDW WKH L HWKLFV L UXCH L WKDW
WKH L (3\$ L LV L HQIRUFLQJ L SUH L GDWHL &WL JHQV L 8QLWHL ZLWK L SUH L GDWHL GDUN L PRCH L
DQG L WKH\YH L VDLG L LQ L WKH L CHWHL WKH L DUHQW HYHQ L ORNLQJ L DW L WKDW EHFDXVH L
WKH L GRQW KDYH L WKH L DXAKRULM L WR

7KDW GRHMOW PHDQL LWW L QRW L DL FRQIOLFW L RI L LQWLUHW L ,W L PHDQV L WKDW WKH L
UHJXODARU L DXAKRULM L RQ L JRYHUQPHQW HWKLFV L KDVQW FDJKW XS L ZLWK L WKLV L
SRW L &WL JHQV L 8QLWHL GDUN L PRCH L ZRUOG L O \ L TXHMLRQ L LV L \RXUH L DL ODZIHU L
\RX L NQRZ L FRQIOLFW L RI L LQWLUHW L \RX YH L EHQL DO L \$WRUQH L *HCHUDOM

OLJKW LW L EH L DL FRQIOLFW L RI L LQWLUHW L ZLWK L \RXU L GHILQWLRQ L RI L WKH L WHUP L LI L \RX L
KDG L UDLVHG L VJQOL L FDQW DPRXQW L RI L PRCH L IRU L WKLV L 5XCH L RI L /DZ L 'HIHQWL
)XQG L DQG L WKH L KDG L EXVLGHW L EHIRUH L ++ L DQG L WKH COOL KDYH L EXVLGHW L EHIRUH L
(3\$ L ZLWK L \RX " L ,V L WKDW DL SRWHQALDO L FRQIOLFW L RI L LQWLUHW

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, L WKLN L MWL LQ L ++ L LI L \RX L DFWDQO \ L GLG L DGGUHW L WKRML HQWLWLV L WR L WKH L GHJUHL
WKDW L , L ZD \ L QMHUL RQ L RI L FHUL RI L WKH L VXSHU L IXQG L WKDW \RX L ++ L WKH L VXSHU L SDPN L
WKDW \RX L UHJHUHG L WR L HDUOLHU L WKH L /LEHJM L ± ! ! ! L DQG L VR L WKH L ORNHG L DW L WKRML
++

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7KH L TXHMLRQ L ZD \ L IXQG L UDLVQJ

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7KH L ORNHG L DW L WKRML HQWLWLV L ++

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7KDW L WKH L TXHMLRQ L ZH L GRQW KDYH L DQ \ L DQVZHUW L RQ L LV L ZKDW \RX L UDLVHG

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLW^H^L +ROGV^L + 3DJH[¶] ¶^L RI^L

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7KHL^L ORRNHG^L DW^L WKRML^L HQWLHV^L WR^L GHWUPLGH^L ZKOW^L WKH^L QDWKH^L RI^L PV^L
UHODWLQW^L ZD^L DQG^L WKH^L LQGLFDWHG^L WKOW^L WKRML^L ZRQGL^L KDH^L WR^L EH^L
HYDOXDW^H^G^L LQ^L WKH^L IXWKH^L DV^L FDMHV^L DURVH^L \$QG^L ++

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5LJKW^L QRZ^L WKH^L &KOLUPDQL^L DMHG^L \RX^L DL^L TXHWLRQ^L ZKLFK^L LV^L DUH^L WKHUH^L
PDWHU^L WKOW^L PLJKW^L SODFH^L \RX^L LQ^L DL^L FRQIOLFW^L RI^L LQWUHVW^L WKOW^L \RX^L KDH^L CRW-
GLVFORMHG^L <\RX^L DQVZHUHG^L | 1R^L | L 0LJKW^L CRW^L KDLQJ^L UDLVHG^L VLJQL^L LFDQW-
PRQH^L CHW^L VD^L DL^L PLOORQ^L GROODUV^L

/HWL^L VD^L \RX^L PDGH^L DL^L FDQO^L WR^L 'HYRQL^L (CHUJ* L DQG^L VDLG^L | , L GLG^L \RXUL^L CHWUH^L
IRU^L \RX^L | , L QDXGLEOH^L QHGVL^L DL^L CRW^L RI^L PRQH^L ZHMH^L JRW^L WKLVL^L GDUN^L PRQH^L
AKLQJ^L ZKHUH^L ZH^L FDQ^L ODXQGHU^L \RXUL^L LGQWVW^L FQHQDQ^L RI^L LW^L DQG^L WKH^L PRQH^L ZLOO^L
JR^L LQAR^L | , L QDXGLEOH^L QHGVL^L DL^L PLOORQ^L EXFW^L RXW^L RI^L \RX^L L 0LJKW^L WKOW^L CRW-
FUHDWH^L DL^L FRQIOLFW^L RI^L LQWUHVW^L IRU^L \RX^L LI^L WKOW^L ZHUL^L WKH^L IDFW"

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0V^L)HZ^L SK^L KDW^L LQGLFDWHG^L LQ^L KHU^L CHWUH^L WR^L PH^L ++ L DJDLQ^L WKHM^L DUH^L FDUHJ^L
LQGLYLGDO^L DW^L (3\$^L HWKLFV^L ++ L WKOW^L LI^L DL^L SDWLFXODU^L PDWHU^L LQYROYLQ^L VSHFL^L LFL^L
SDWLFM^L DULVH^L LQ^L WKH^L IXWKH^L LW^L ZLOO^L EH^L HYDOXDW^H^G^L DW^L WKOW^L SRQW^L ++

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+RZ^L ZLOO^L WKH^L NQRZ^L LI^L \RX^L DUH^L CRW^L ZLOOLQJ^L WR^L GLVFORMH^L WKOW^L \RX^L UDLVHG^L WKH^L
KISRKWHLFDO^L PLOORQ^L GROODUV^L TURP^L 'HYRQL^L (CHUJ\")

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:HOO^L WKRML^L DUH^L CRW^L HYHQ^L FRYHUHG^L HQWLHV^L XQGHU^L KHU^L CHWUH^L DW^L WKLVL^L ++

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7KDWL^L P^L SRQW^L EXW^L WKOW^L PD^L YHU^L ZHOO^L FUHDWH^L DL^L FRQIOLFW^L RI^L LQWUHVW^L
PLJKWQW^L LW^L

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6HQDWRU^L , L GLG^L CRW^L VHJH^L LQ^L DQ^L RI^L LFHJ^L FDSDFLW^L DW^L WKDW^L HQWWM^L , Q^L IDFW^L ++

&4 FRP[†] 6HQDWH[†] (QYLURQPHQW[†] DQG[†] 3XEOLF[†] :RUNV[†] &RPPLW[†] TXHMLRQ[†] 3DJH[†] RI[†]

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<RXH[†] VDLG[†] WKDW[†] DOUHDG[†] WRR[†] %&W[†] WKDW[†] ++ L WKDW[†] DOVR[†] CRW[†] WKH[†] TXHMLRQ[†] 7KH[†]
TXHMLRQ[†] LVL DL YHU[†] VLPSC[†] RQ[†] GLG[†] \RX[†] UDLVH[†] PRQH[†] IRU[†] WKH[†] 5XCH[†] RI[†] /DZ[†]
'HIHQH[†])XQG[†] IURP[†] HOMWLHV[†] WKDW[†] ZLOO[†] DSSHUL[†] EHIRUH[†] (3\$[†] DV[†] SRWQALDO[†]
GHIHQDQW[†] DQG[†] VXBMRW[†] WR[†] UHJXODALRQ[†] DQG[†] LI[†] VR[†] KRZ[†] PXF[†] DQG[†] ZKDW[†] GLG[†]
\RX[†] WHOO[†] WKHP[†] \$QG[†] ZKDW[†] GLG[†] \RX[†] DVN[†] ,W[†] VHPV[†] WR[†] PH[†] WKDW[†] CRW[†] DQG[†]
XQXVDO[†] RU[†] ++

358,77 L

7KH[†] 5XCH[†] RI[†] /DZ[†] 'HIHQH[†])XQG[†] L DFRUGLQJ[†] WR[†] OV[†] L)HZ[†] L ZRXOG[†] QHG[†] WR[†]
EH[†] DL SDUM[†] LQ[†] WKH[†] IXAXUH[†] IRU[†] WKDW[†] WR[†] EH[†] DQ[†] LWXH[†] L 7KDW[†] ZKDW[†] VKH[†]
LQGLFDW[†] LQ[†] KH[†] CHWU[†] WR[†] PH[†] \$W[†] WKH[†] WLPH[†] L LI[†] LWXHV[†] DULVH[†] LQ[†] WKH[†] IXAXUH[†], L ZI
VHN[†] WKH[†] FRXQH[†] RI[†] (3\$[†] HWKLFW[†] LQYROYH[†] WKH[†] DGYLPH[†] RI[†] WKRVH[†] FDUH[†] IRON[†] L
DQG[†] PDNH[†] DL GHFLVLRQ[†] DQG[†] UHFXVH[†] LI[†] QHHWDU[†] L 7KDW[†] LV[†] VRPHWKLQJ[†], L
FRPPLW[†] WR[†] GRLQJ[†]

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%&W[†] DW[†] WKLV[†] SRLQW[†] ++ L DW[†] WKLV[†] SRLQW[†] L ZKDW[†], L GHGXFH[†] IURP[†] \RXU[†] VWDWPHQW[†] LV[†]
WKDW[†] LI[†] WKDW[†] VHW[†] RI[†] KISRKHMLFDOL[†] IDFWL[†] ZHUH[†] WUXH[†] L LI[†] \RX[†] KDG[†] UDLVHG[†] D[†] PLOORQ[†]
GROODUV[†] IURP[†] D[†] ELJ[†] HQHW[†] L FRUSRUDALRQ[†] WR[†] JR[†] WKURXJK[†] WKH[†] 5XCH[†] RI[†] /DZ[†]
'HIHQH[†])XQG[†] L WR[†] VSSRUW[†] \RXU[†] HI[†] IRUAW[†] DW[†] ♂ LQDXGLEOH[†] L WKDW[†] WKDW[†] LV[†] CRW[†]
VRPHWKLQJ[†] DQVERG[†] L VRXOG[†] FDUH[†] DERXW[†] HYHQ[†] LI[†] WKDW[†] FRUSRUDALRQ[†] LV[†] EHIRUH[†]
\RX[†] DW[†] (3\$[†] DQG[†] VXBMRW[†] WR[†] \RXU[†] UHJXODALRQ[†] ++

358,77 L

2K[†] L , L WKLN[†] LWW[†] VRPHWKLQJ[†] WKDW[†] LI[†] SUHMHQW[†] LQ[†] WKH[†] IXAXUH[†] L WKDW[†] ZRXOG[†] ++ L
♂ LQDXGLEOH[†] L D[†] IHZ[†] L P\WHO[†] ++ L (3\$[†] HWKLFW[†] ZRXOG[†] HYDOXDH[†] WKDW[†] DQG[†], L ZRXOG[†]
ADNH[†] WKH[†] DSSURSULDW[†] WHSV[†] WR[†] UHFXVH[†] LI[†] ++

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%&W[†] KRZ[†] ZRXOG[†] LW[†] EH[†] SUHMHQW[†] LQ[†] WKH[†] IXAXUH[†] LI[†] \RX[†] DUH[†] CRW[†] ZLOOLQJ[†] WR[†]
SUHMHQW[†] LW[†] QRZ[†] L :KV[†] ZRXOG[†] LW[†] PDWPHU[†] LQ[†] WKH[†] IXAXUH[†] DQG[†] CRW[†] QRZ[†]

358,77 L

&4 FRP 6HQDWL (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPILWHL +ROGV L + 3DJH P L RI L

, L WKHUH L LV L DL PDWHU L ++ L DL FDMH L WKOW FRPHV L EHIRUH L WKH L (3\$V L DXVKULM L 7KOW ZRXOG L BH L VRPHWKLQJ L ++ L WKHUHV L RQJRLQJ L DV L \RX L NQRZ L 6HQDWU L OV L)HZ L LQGLFDWGL WKLV L LQ L KHU L CHWHL L ++ L WKHUHV L RQJRLQJ L REOLJDALRQV L WKOW , L ZLOO L KDYH L LI L FRQI LUPHG L DV L DGPLQLWUDWU L WR L EULQJ L WKRVH L NLQGV L RI L PDWHU L WR L WKH L DMWQLRQ L RI L (3\$ L HWKLFV L

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:HOD L IRU L ZKOW L WAW L ZRUWK L , L WKLQD L WKOW WKH L 6HQDWL KDV L D L URCH L LQ L SROLFLQJ L WKLV L DV L ZHOD L 7KOW WKH L ZKROH L SXUSRVL R I L DGYLFH L DQG L FRQH QW L DQG L WKH L UHDVRQ L AKHUH L DUH L WKMHL JRYHQPHQW HWKLFV L TLOLQJ L L V L VR L WKOW ZH L FDQ L ORRN L DW L WKLV L H[DFAW TXHMLRQ L

\$QG L WKH L IDFW WKH L KDYH QW BHQ L XSGDWGL VR L WDNL LQWL DFFRXQW GDU L PRCH L DQG L DOD L RI L WKMHL ELJ L SROLFLDO L RUDQL]DWLRQV L WKOW KDYH L BHQ L FUHDWGL ZWKL GDU L PRCH L GRHMQW WDNL DZD L RXU L 6HQDWL REOLJDALRQ L WR L TLOGL RXW L ZKOW FRQIOLEW L RI L LQHUVW \RX L ZLOO L EULQJ L WR L WKH L SRVWLRQ L RI L \$GPLQLWUDWU L \$QG L LW JLYHV L PH L YHU L OLWCH L FRPIRUW WKOW \RXUH L CRW ZLOOLQJ L WR L DQVZHU L WKRVH L TXHMLRQV L KHU L

0\ L WLPH L KDV L H[SLUHG L , OOL FRQWLOXH L LQ L RAKHU L URXGGV L

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7KQNL \RX L YHU L PXFK L 6HQDWU L :KLUHKRXVH L , L ZRXOG L OLNH L WR L LQWURGXFW L IRU L AKH L UHFRUG L DQ L DJWLFCH L WKH L \$WRFLDWL 3UHW L LQ L WKH L 6HDWCH L 7LPHV L KHDGOLQH L | MKLFB L 211LFDO L &HDU L 7UXPS L (3\$ L 1RPLQH L |

, W VD\W L | 7KH L 211LFH L RI L *RYHQPHQW MKLFB L RQ L ORQGD L L UHDHMGL WKH L SHURQDO L TLODQFLDO L GLVFORXUH L UHSRUW IRU L 6FRWW 3UXWW L FXUHQW L 2NOKRPDV L \$WRUQH L *HQHUDO L 7KH L ++ L WKH L MKLFB L 211LFH L DI L UPHG L WKOW 3UXWW L GLVFORXUH L FRPSO L ZWKL DSSOLFDEOH L IHCHUDO L ODZV L DQG L UXOH L

+L V L TLODQFH L L W VD\W L DUH L DPRQJ L WKH L CHDW L FRPSOLFDWGL RI L 7UXPSV L FDELQH W QRPLQH L | L 6HQDWU L %RR]PDQ L

%22=0\$1 L

7KQNL \RX L OUN L &KOLUPDQ L , L ++ L , L UHDOO L GRL TLOGL L W L LURQFL ++ L LURQFL DQG L K\SRFULWLFDO L WKOW ZHJH L LQ D L VIMWDLRQ L WKOW P\ L TULHQGV L RQ L WKH L RAKHU L VLGH L RI L AKH L DLVCH L RI L WKLV L FRPPLWHL XVLQJ L WKH L GH L QLWLRQ L RI L GDU L PRCH L DV L HOHWGL RI L LFDO L KDYH L OLWHDOD L UDLVGL PLOORQV L RI L GROODUV L RI L VR FDOOHGL GDU L PRCH L

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWTH^L +ROGV^L +HE 3DJH[¶] TLPRI^L

7KH^L ++ ,GL OLNH^L WR^L WDON^L DL OLWCH^L ELW^L DERXW^L VRPH^L RI^L WKH^L RYHU^L UHJXODRU^V EXUGHQ^L
AKOW^L WKH^L WDWHV^L DUH^L IDFLQJ^L \$LU^L TXDOLM^L LQ^L \$UNDQDV[¶] L LVL DPRQJ^L VRPH^L RI^L WKH^L
FOHDQHW^L LQ^L WKH^L QDWLRQ^L GHMSLWH^L WKH^L SURJUHW^L WKD^L WKD^L WKH^L WDWH^L KDV^L PDGH[¶] L
ORRNLQJ^L IRUZDUG^L WU^V L WR^L GR^L WKH^L ULJKW^L WKLQJ^L 7KH^L 5HJLRCDO^L +DJH^L IHGHUDO^L SODQ^L
LV^L JRLQJ^L WR^L SURGXFH^L DL WUHPHQCRXV^L HFRQRPLF^L EXUGHQ^L RQ^L HP[¶]

, L WKLQJ^L IWW^L DL SULPH^L H[DPSOH^L RI^L WKH^L KDSKD]DUG^L UHJXODRU^V L DAPRVSKHUH^L ZH^L
AKOW^L ZHYH^L KDG^L LQ^L WKH^L SDW[¶] L ZLWK^L OLWCH^L LQSXW^L TURPL^L WKH^L WDWHV^L DQG^L
WDNHKROGHU[¶] L)RU^L VHUV^L WKH^L UHJXODRU^V L FHUWDLQW^L KDV^L SUHMHQHG^L
EXVLQHWHV^L TURPL^L KLULQJ^L CHZ^L HPSORVHHM[¶] L WAXQNLQJ^L HFRQRPLF^L JURZAK[¶]

,Q^L IDRW^L WKH^L 1DWLRQDO^L 6PDQO^L %AVLQHW^L \$WRFLDWLRQ^L WKD^L ZDV^L MXW^L UHODMHG[¶] L
IRXGG^L WKD^L PRUH^L WKDQ^L KDOI^L RI^L VPDOO^L EXVLQHWHV^L KDYH^L KHOG^L RI^L RQ^L KLULQJ^L
EHFDXVH^L WKH^L GROW^L NGRZ^L ZKDW^L WKH^L UXCHV^L DUH^L JRQD^L EH[¶]

&DQ^L \RX^L ++ L \RXYH^L PHQWLRQHG^L VHMUDO^L WLPHV^L ++ L FDQ^L \RX^L WDON^L DL OLWCH^L ELW^L
PRUH^L DERXW^L WKH^L LPSDRW^L WKD^L \RXYH^L VHQ^L LQ^L UHJDUG^L WR^L UHJXODRU^V
XQFHUWDLQW^L LQ^L WKH^L WDWH^L RI^L 2NODKRPD["] L 7KH^L H[SHULHQFH^L \RXYH^L KDG[¶]

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6HQDWRU[¶] L WKH^L YLVLELOM^L SURJUDP[¶] L ZHYH^L KDG^L VLPLQDU^L FKDQHQJHV^L LQ^L
2NODKRPD[¶] L 7KH^L 5HJLRCDO^L \$LGV^L 3URJUDPL^L XQGHU^L WKH^L &CHDQ^L \$LU^L \$FW[¶] L WKD^L
VHFWRQ^L RI^L WKH^L &CHDQ^L \$LU^L \$FW[¶] LV^L UHDOO^V L TXLWH^L DL ELW^L GLI1HJHQW^L WKDQ^L RAKHU^L
SURYLVRQV^L RI^L WKH^L &CHDQ^L \$LU^L \$FW[¶] L ,W^L JLYHV^L SURPLVH^L WR^L WKH^L WDWH^L LQ^L DGRSWLQJ^L
SODQ^L WR^L LQFHDMH^L RU^L LPSURYH^L YLVLELOM[¶]

7KDW^L SDUWLFXODU^L VHFWRQ^L RI^L WKH^L ODZ^L VD\V^L WKD^L E\ L WKH^L VHUV^L ++ L WKH^L ZH^L
VKRXOG^L KDYH^L QDWLRQ^L YLVLELOM^L LQ^L VRPH^L NH^L DUHDV^L DFURW^L WKH^L FRXQWU[¶] L
2NODKRPD^L VHMUDO^L VHUV^L DJR^L ++ L DFWKDOO^V L LQ^L ++ L ¶ !! ¶ L XQGHU^L DL GLI1HJHQW^L
DGPLQLWUDWLRQ[¶] L ERWK^L *RYHUQRU^L DQG^L \$WRUQH^L *HQHUDO^L VXEPLWHG^L DL WDWH^L
LPSCHPHQWDLRQ^L SODQ^L WKD^L EHDX^L WKD^L GHDOOLQH^L E\ L GHFDGH[¶]

%XW^L GHMSLWH^L WDWH[¶] L WKH^L (3\$ L FDPH^L LQ^L DQG^L UHMHRWHL^L WKD^L WDWH^L
LPSCHPHQWDLRQ^L SODQ^L DQG^L IRUH^L D^L IHGHUDO^L LPSCHPHQWDLRQ^L SODQ^L RQ^L WKH^L
WDWH[¶] L FRWALQJ^L FRQXPHUV^L TXLWH^L DL ELW^L RI^L PRQH[¶] L 2QH^L WKLQJ^L WKD^L , L ZRXOG^L
DGG^L WKD^L , L GLGQW^L WDON^L DERXW^L HDUOLHU[¶] L ZH^L WDWHG^L DERXW^L ++ L ZH^L WDWHG^L DERXW^L
FRSHUDWLYH^L IHGHUDOOLV^L DQG^L WKH^L LPSRUWDQFH^L RI^L SDUWCHUML[¶]

KWS ↑ ↑ ZZZ FT FRP GRF FRQJUHWLRQDQWUDQWULSAW "¶" L SULQWVWUH ¶ !!

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWVH^L +ROGV^L +3DJH[¶] +LRI^L

, L WDNHG^L DERXW^L WKDW[¶] L <RXYH^L WDNHG^L DERXW^L WKDW[¶] L 8QGHU^L WKLVL^L SDWW^L
DGPLQLWUDALRQ^L WKH^L XHL RI L IHGHUDO^L LPSCHPHQNDALRQ^L SODQV[¶] L L L \RX^L FRPELCH^L
3UHMLGHQW^L %AVK[¶] L 3UHMLGHQW^L &OLQARQ^L DQG^L 3UHMLGHQW^L *HRUWH^L : L %AVK[¶] L
AKRVH^L WKUHL^L DGPLQLWUDALRQ^L FRPELCHG[¶] L WKH^L LWXHG^L ILYH^L IHGHUDO^L
LPSCHPHQNDALRQ^L SODQV^L XQGHU^L WKH^L &HDQ^L \$LU^L \$FW[¶] L LQ^L WKUHL^L DGPLQLWUDALRQ[¶]
7KLV^L DGPLQLWUDALRQ^L KDV^L LWXHG^L ↑ + L 6RL LW VRZV^L DQ^L DWWXGH^L RI L
LQGLI IHUHQFH[¶] L \$Q^L DWWXGH^L RI L WULQJ^L WR^L EH^L GLFADWULDO^L LQ^L VRPH^L UHSHFW^L
ARZDUG^L WKH^L WDNHV^L URCH^L RU^L PDQLSXODALYH^L RI L WKH^L WDNHV^L URCH^L LQ^L DL ZDV L WKDW[¶] L
, L WKLQ[¶] L FRQWHUSURGXFWLYH^L IRU^L DLU^L TXDOLW[¶]

%22=0\$1 L

6R[¶] L ZKHQ^L \RX^L DQG^L IHORZ^L \$MRUQH^L *HQHUDO[¶] L RAKHU^L WDNHKROGHU^L VХ^L WKH^L
IHGHUDO^L *RYHUQPHQW^L ZKHQHUL^L LWL 5HJLRQDOL^L +DJH^L RU^L :DWHUV^L RI L WKH^L 8 6 L RU^L
ZKDWYHU[¶] L \RXU^L JRDO^L LV^L QRM^L WR^L GR^L DZD\ L ZLWK^L UHJXODALRQ[¶] L \RXU^L JRDO^L LV^L WR^L
PDNH^L LW VXFK^L WKDW^L WKH^L (3\$ L IHORZ^L WKHUL^L UHJXODALRU^L DXAKRULW[¶] L ,V^L WKDW^L
FRUHW[¶]

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<HM[¶] L 6HQDWU[¶] L \$Q^L LQ^L DQ^L H[DPSOH^L , L SURYLGHG^L WR^L \RX[¶] L ZKHUH^L WKH^L WDNHV^L
LPSCHPHQNDALRQ^L SODQ^L RI L 2NODKRPD^L WKDW^L ZDV^L UHMFRW^L ZH^L DRAWDOD^L VDALV^L LHG^L
AKH^L WDNHWU^L PDQGDWH[¶] L LW ZDV^L XQGHU^L WKH^L UHJLRQDOL^L HG^L SURJUDP[¶]

:H^L UHDFKHG^L QDWKUDOL^L YLVLELOW^L DL FRXSCH^L GHFDGHV^L DHKDGL RI L VFKHGXCH[¶] L 7KH^L
PHWKRGORJ\ L WKDW^L ZDV^L XHG[¶] L WKH^L (3\$ L MAIW^L VLPSON^L GLVDJUHGL^L ZLWK^L LW[¶] L \$Q^L
VR[¶] L WKH^L XHG^L WKHUL^L DXAKRULW^L WR^L GLVSODFH^L WKDW^L WDNHV^L SODQ[¶] L FRWALQJ^L
FRQXPHUV^L LQ^L WKH^L WDNHV^L KXQGUHGV^L RI L PLOORQ^L RI L GROODUV^L LQ^L LQFHDMHG^L XALOLW^L
FRWW[¶]

%22=0\$1 L

2QH^L RI L WKH^L WKLQJV^L WKDW^L ++ L WKDW^L , L WKLQ[¶] L ZMH^L VHQL^L DOVR^L LQ^L WKH^L ODNW^L HLJKW^L
VHDUV^L LV^L WUHPHQGRXV^L PLWLRQ^L FUHS^L RQ^L WKH^L SDUW^L RI L WKH^L (3\$ L ZKHUH^L WKH^L
KDYH^L JRWHQ^L LQAR^L DUHDV^L ZKHUH^L WKH^L GROW^L KDYH^L WKH^L H[SHUWLVH[¶]

7KH^L GROW^L KDYH^L WKH^L ++ L WKH[¶] L \RX^L NGRZ[¶] L WKH^L ZHOO^L H[SHUWLVH^L , L WKLQ[¶] ZRXOG^L EH^L
AKH^L EHWW^L ZRUG[¶] L LQ^L UHJDUGV^L WR^L FRPLQJ^L RXW^L ZLWK^L VRPH^L RI L WKH^L WKLQJV^L WKHYH^L
GRQH^L ZKHUH^L WKH^L ODN^L MULVGLFALRQ^L DQG^L KDYHQW^L UHDOD^L EHQ^L LQ^L WKH^L SDWW[¶]

KWS ↑ ↑ ZZZ FT FRP[†] GRF[†] FRQJUHWLRQ^L DQG^L QMULS[¶] "¶" L SULQWVW^L ¶ + !!

&4◀ FRP↑6HQDWHL (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L +HE 3DJH ¶ ± RI ±

&DQ L ZH L FRXQW RQ L \RX L WR L ZRUN L ZIWK L WKH L RAKHU L DJHQFLHV L WR L WDNL WKHLU L
H[SHUWLVL LQWR L FDUIXOL FRQMLGHUWLRLQ L DV L ZH L FRPHL RXW L ZIWK L WKH L UXCHV L DQG L
UHJXODWLRLQV"

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, L WKLQN L LQWUDJHQF\ L FRRSHUDWLRLQ L LV L YHU\ L YHU\ L LPSRUWDQW L 2EYLRXVO\ L ZIWK L
UXCHFDNLQJ L WKDW L VRPHWKLQJ L WKDW L RFFXUV\ L DQG L VKRQOG L RFFXUV\ L , L WKLQN\ L LQ L DL
YHU\ L FRODERUDALYH L ZD\ L \$Q L VR L VH\ L 6HQDWRL L , L EHOLHYH L LW L YHU\ L LPSRUWDQW
DV L WKH L (\$3 L FRQGXFW L LW L EXVLQHWA L WKDW LW ZRUNV L ZIWK L WKH L FRUH L ++ L ZRUNV L
ZIWK L RAKHU L DJHQFLHV L DW L WKH L IHGHUDOL OHMHO L WR L HQXUH L WKDW LW GRLQJ L DOO L LW FDQ L
AR L DGYDQFH L DQG L SURWHFW L ZD\HUL TXDOIW L DQG L DLU L TXDOIW\ L %\W L GR L VR L LQ L WKH L
IUDPHRUN L HWDEOLVKHG L E\ L &RQJUHW\

%22=0\$1 L

\$QG\ L GRHV L LW IHDL OLNH L LW L WKH L XOWLPDW L GHFLGHU\ L DJDLQ\ L ZKHQ L WKH\ L
VRPHWLPHV L GR L GRW L KDH L WKH L H[SHUWLVL RI L WKH L RAKHU L DJHQFLHV"

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<HM\ L 6HQDWRL L , L DJUH\

%22=0\$1 L

7KDN L \RX\

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7KDN L \RX\

%22=0\$1 L

7KDN L \RX\ L OU\ L &KDLUPDQ\

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7KDN L \RX\ L 6HQDWRL %RR]PDQ\ L 6HQDWRL OHNCH\

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7KDN L \RX\ L OU\ L &KDLUPDQ\ L OU\ L 3UXLW\ L DUH L \RX\ L ++ L DUH L \RX\ L IDPLOLDU L ZIWK L WKLV L
SLHFH L RI L PHGLFDO L HTXLSPHQW"

&4 FRP+6HQDWH (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPLWVH L +ROGV L + 3DJH P L RI

358,77 L

4M L DQ L LQKDOHU L IW L ORRNW L OLNH"

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4M L DQ L DWAKPD L LQKDOHU L 7KH L + + L DUH L \RX L IDPLOLDU L ZIWK L KRZ L PDQ V L
\$PHULFDQV L KDYH L DWAKPD"

358,77 L

1R L 6HQDWHU L ,PL GRW

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:HOD L IWW L DERXW P L RXW RI L P ! ! L \$PHULFDQV L LQFOXGLQJ L RYHU L → L PLOOLRQ L FKLOGUHQ L VR L IWW L D L SUHM L VLJQL L FDFQW L KHDOWK L SUREOPL DFURW L WKH L FRXQWV L DQG L , L NQRZ L , L KDYH L EHHL L IRUWKDWH L GRW WR L KDYH L DWAKPD L EXW VRPH L IRONV L , L NQRZ L ZKR L KDYH L DQG L KDYH L DWAKPD L DWDFNV L IHH L OLNH L WKH L VXTIRFDALQJ L DQG L VRPHLPHV L WKH L JR L LQAR L FULVLV

3HRSOH L JR L LQAR L FULVLV L ZIWK L DWAKPD L VRPHLPHV L WKH L + + L WKH L GLH L IURP L IWW L VR L IWW L D L WHU L \LQJ L FRQGLWRQ L \$QG L WKH L (3\$ L LQ L 2FREHU L + ! ! P ! ↑ L WUHQJWKHG L AKH L QWLRCQDOL DPELHQW DLUL TXDOLW L WDGQDUGV L IRU L JURXQG L CHYHD L R JRC H

7KH L WUHQJWKHG L IW L WR L + ! ! L SDUW L SHU L ELOOLRQ L DGMWVWQJ L IW L IURP L → ↑ L SDUW L SHU L ELOOLRQ L EHDXVH L WKH L DUJHG L IW L ZDV L DQ L DWDFNQDEOH L WDGQDUG L WKW L ZRQOG L VDYL T L WR L + L ELOOLRQ L GROODUV L DQG L LQ L DGGGLWRQ L RI L FRXUMH L JUHDW L LPSURYHV L WKH L TXDOLW L RI L OLIH L E\ L GPLQLVWLQJ L WKH L DPRXQW RI L + + L RI L DWAKPD L DWDFNV L DQG L + + L DQG L GHDKV L \$QG L \RX L FKDOOHQJH L WKLV

\RX L + + L \RX L ODXQFKHG L D L ODZVXLW L DJDLQW L WKLV L + + L WKLV L WDGQDUG L \$QG L ZDV L WKH L EDMLV L RI L \RXU L ODZVXLW L FRW L EHQH L IW L DQDOV L VLV L WKW L WKH L GLGQW L IROORZ L WKH L SURFH W"

358,77 L

,W ZDV L GRW L 6HQDWHU L \$V L \RX L NQRZ L XQGHU L WKH L 1DMK L SK L 3URJUDP L WKH L :KWDQDQ L SK L 'HFLVLRQ L DVV L FRW L FDQQRW EH L FRQVLGHUHG L LQ L D L FULWULD L SRQWWDQW

0(5./(< L

\$QG L WKW L ZDV L WKH L WDGQDUG L WKW L \RX L ZHJH L FKDOOHQJLQJ"

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWTH^L +ROGV^L + 3DJH[¶] ↑RI ↑

358,77 L

,W- ZDV^L D^L UHFRUGV^L EDHG^L FKDOOHQJH^L WKDW- WKH^L QHG^L WR^L + + L WR^L + + L WR^L UDARKHW^L GRZQ^L
IURPL → ↑ L SDUWW^L SHU^L ELOOLRQ^L WR^L → !! L SDUWW^L SHU^L ELOOLRQ^L + + L DVL\IRXL NQRZ^L WKH^L → !! L
SDUWW^L SHU^L ELOOLRQ^L KDG^L RQO^L EH^L LQ^L WKH^L RSHUDWLQ^L IRU^L WR^L \HV[¶] L \$QG^L , L
AKLQH^L 6HQDWH^L LWW^L LPSRUWDQW^L IURPL D^L SULRULM^L SHUSSHFLYH[¶] L \$L UHMRXUFH^L
SHUSSHFLYH^L RI L WKH^L (3\$^L ZKHQ^L + !! L SHUHQW^L RI L WKH^L FRXQW^L L LVL LQ^L
QRQDWDLQPHQW^L IRU^L RQH^L RI L WKRWH^L FULWHULD^L SROOXWDQW^L SHUDSV^L WKHUH^L VKRQOG^L
EH^L IRFXV^L RQ^L KRZ^L WR^L PHW^L WKH^L CHYHOL^L DOUDG^L LQ^L WDWWWH[¶] L RU^L DOUDG^L LQ^L UXOH^L + +

0(5./(< L

<RX^L FKDOOHQJH^L WKLV^L EDHG^L RQ^L WKH^L DWDLODELOM^L WDWQEDUG^{"L} , L DOUDG^L L NQRZ^L
AKDW^L + +

358,77 L

,W- ZDV^L D^L UHFRUGV^L EDHG^L FKDOOHQJH[¶] L \HV[¶]

0(5./(< L

,W^L DWDLODELOM^L WDWQEDUG[¶] L \$QG^L WKHUH^L ZHUH^L QXPHURXV^L JURXSV^L WKDW- + + L WKDW-
ZHLJKHG^L LQ^L DQG^L VDLG[¶] L | 1R[¶] L WKLV^L LV^L WRADOO^{\L} DWDLODECH[¶] | L \$QG[¶] L ,OO^L VXEPLW^L D^L OLW
IRU^L WKH^L UHFRUG[¶] L RI L WKDW[¶] OU[¶] L &KDLUPDQ[¶]

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:WKRW- REHFWLRQ[¶]

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\$QG[¶] L WKH^L NH^L WR^L WKLV^L LV^L WKDW- EV^L LPSCHPHQW^L WKDW- + + L EV^L WKH^L WLPH^L LW^L
LPSCHPHQW^{HG^L} + + L LW^L ZRQG^L VDYH^L DQGXDOO^{\L} T !! ! ! ! ! L + + L DQ^L HWALPDWH^L RI L FRXUH^L
+ + L DWKPD^L DWDPNV^L DPRQJ^L FKLOGUHQ[¶] L ¶ T !! ! ! ! ! L PLWHG^L VFKRRO^L GD\W[¶] L DL
AUXPHQGRXV^L QXPEHUL^L RI L PLWHG^L ZRUNGDW[¶] L ¶ T !! L HPHUWHQF^L URRPL YLVWW^L
DQG^L T + !! L FDHV^L RI L DFQW^L EUQFKLW[¶]

%\$W[¶] L LW^L DOVR^L ZRQG^L VDYH^L + + L EHWW^L HWALPDWH^L + + L T + !! L WR^L + + !! L SUHPDWKH^L GHDKV^L
6R^L KHUH^L LV^L VRPHWKLQJ^L WKDW- SURIRXQGO^{\L} DI1HFW^L WKH^L KHDKW^L RI L IRONV^L LQ^L
2NOKRPD^L DQG^L IRONV^L DFURW^L WKH^L FRXQW[¶] L IRONV^L LQ^L P\ L KRPH^L WDW^L RI L
2UHJRQ[¶]

KWS ↑↑ ZZZ[¶] FT[¶] FRP[†] GRF[†] FRQJUHWLRQ[¶] DOWDQFHULSW^{"¶} L SULQWWUXH ¶ + !!

&4 FRP[†] 6HQDWL (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPILWTH^L +ROGV^L + 3DJH[¶] 11|R1 11

6RPHWLQJ^L WKDW^L H[SHUW^L DMHU^L H[SHUW^L VDLG^L LV^L IXOO\ L DMDLODECH[¶] L DQG^L \RX^L
FKOOCQJHL^L LW^L CRW^L RQ^L DL SURFH^L LWXH^L WKDW^L LV^L CRW^L RQ^L ZKHWKHUL^L RU^L CRW^L WKHUH^L
ZDV^L DL FRWW^F EHQHILW^L DDDO\VLV[¶] L EHDXVH^L DV^L \RX^L ULJKW^{\L} SRLQW^{HG}L RXW[¶] L FRWW^L LV^L
CRW^L DOORZHGL^L WR^L EH^L DL IDFWRU[¶] L EXW^L ZKHWKHUL^L LW^L ZDV^L DMDLODECH[¶]

6R[¶] L ZK^L ILJKW^L VR^L KDUG^L RQ^L WKH^L VLGH^L RI^L WKH^L RLO^L LQGXWU\ " L 5DWHU^L WKDQ^L ILJKW^L
RQ^L WKH^L VLGH^L RI^L WKH^L KHDWK^L RI^L WKH^L SHRSCH^L RI^L 2NODKRPD["] L 358,77 L 6HQDWU[¶] L
CHW^F PH^L VD^L WR^L \RX^L ZLWK^L UHMSHW^L WR^L WKH^L \$16+ L SURJUDP[¶] L ZKHQ^L \RX^L ORRN^L DW^L
WKH^L QRODWDLQPHQW^L ZH^L KDYH^L LQ^L WKLVL FRXQWU[¶] L LW^L SUHMHQNO\ L DURXQG^L + !! L
SHUFHQW^L L , L WKLQNL LOFUHDLQJ^L WKH^L QRODWDLQPHQW^L SHUFHQWDJH[¶] L DV^L RSSRVHG^L WR^L
IRFXVLQJ^L UHVRXUHV^L WR^L JHW^L QRODWDLQPHQW^L LQWR^L DMDLOPHQW[¶] L LV^L DL YHU\ L
LPSRUWDQW^L URCH^L RI^L WKH^L (3\$[¶]

:H^L VKRXQG^L WDNLQJ^L WKRVH^L PDWLODO^L DQG^L PRGHUDWHL DU-HDV^L LQ^L RXU^L PDS[¶] L WKDW^L
DU^L QRODWDLQPHQW[¶] L DQG^L ZRUN^L ZLWK^L ORFDOL RI IFLDOV[¶] L WKRVH^L FRXQNLHM[¶] L WKURXJK^L
PRQLWRULQJ^L DQG^L DWLWDQFH^L WR^L KHOS^L PRYH^L IURPL QRODWDLQPHQW^L WR^L
DMDLOPHQW[¶] L 7KDW^L LV^L DL YHU\ L LPSRUWDQW^L JRDO^L RI^L WKH^L (3\$[¶] L ,Q^L HDFK^L RI^L WKHM^L ++

0(5./(< L
7KDN^L \RX[¶] L 7KDN^L \RX[¶] L <RYH^L FDGH^L \RXU^L SRLQW^L FODU[¶] L , L MKW^L VLPSO\ L
GLVDJUH^L ZLWK^L \RX[¶] L 1RQH^L RI^L WKHM^L WLDQDUGV^L ZKHQ^L WKH^L DU^L VHW^L DU^L
DMDLOHG[¶] L 7KDW^L LV^L WKH^L SRLQW[¶] L ,W^L LV^L DQ^L REMHRYLYH^L WR^L EH^L ZRUNHG^L DW^L RYHUL WPH[¶] L
7KHUH^L ZDV^L DL WLDWHAJ\ L WKDW^L WKLVL PLJKW^L WDNH^L XQWLO^L + !! + ↑ L WR^L EH^L IXOO\ L
LPSOHPHQW^{HG}

7KDW[¶] L LQ^L WKH^L FRXUMH^L RI^L OD\LQJ^L RXW^L WKDW^L YLVLRQ^L DQG^L KDYLQJ^L IRONV^L DFURW^L WKH^L
FRXQW^L L ZRUN^L WRZDUGV^L WKDW^L YLVLRQ[¶] L \RX^L HQ^L XS^L VDYLQJ^L D\ WUHPHQGRXV^L
DPRXQW^L RI^L PRQH\ L DQG^L D\ WUHPHQGRXV^L DPRXQW^L RI^L OLYHV[¶]

\$QG^L ,[¶] L DV^L DL 6HQDWU^L IURPL 2UHJRQ[¶] L ILJKW^L IRU^L WKH^L TXDOLW^L RI^L OLIH^L RI^L
2UHJRQLDQ[¶] L GHHSO\ L UHMHQW^L IRONV^L ILJKW^L IRU^L RLO^L LQGXWU[¶] L WKDW^L DU^L WU\LQJ^L WR^L
GDPDJH^L WKH^L KHDWK^L RI^L P\ L FRQWNLWHLQW[¶] L DQG^L \$PHULFDQV^L DFURW^L WKLVL^L
FRXQWU[¶] L ,W^L LV^L DL TXHMLRQ^L RI^L YDOXHV[¶]

\$QG^L YDOXLQJ^L SURI\W^L RI^L FRPSDQLHV^L RYHUL WKH^L KHDWK^L RI^L RXU^L FIW\JHQV^L LV^L DL
FKOUDRWHUL^L LWXH^L DQG^L WKDW^L LV^L ZKDW^L WKHM^L KHDULQJV^L DU^L DOL DERXW[¶] L :H^L DU^L
FKOUDJH^L ZLWK^L +DPLQW[¶] L WR^L GHWHUPLQH^L ZKHWKHUL^L RU^L CRW^L DQ^L LQGLYLGXDO^L LV^L RI^L ILW^L
FKOUDRWHUL[¶] L 7R^L PH^L WKLVL LV^L DL FKOUDRWHUL^L LWXH^L + + L YDOXLQJ^L SURI\W^L RYHUL SHRSCH^L
KHDWK^L L 7KDN^L \RX[¶] L OU[¶] L &KDLU[¶]

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&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPHWLH L +ROGV L + 3DJH P L RI L

7KDN L \RX L 6HQDWL OHUNCHV L ,PL VXEPLWLQJ L IRU L WKH L UHFRUG L DL UHSRUW E\ L
WKH L 1DMLRQDO L %ODFN L &KOPHEUL RI L &RPPHWL HOMWCHGL | 3RWKQWDO L ,PSDFW RI L
3URSRMHGL (3\$ L 5HJXODMLRQV L RQ L /RZ L ,QFRPH L *URXSVL DOGL OLGRULW L |

7KH L UHSRUW JRHV L TURP L + !! P I O L JRHV L RQ L WR L VD L WKDW L (3\$ L UHJXODMLRQV L
LQFOXGLQJ L \WW L UHJXODMLRQ L RQ L FDUELRQ L GLR[LGH L HPLWLRQV L ZRXOG L UHMOW L LQ L WKH L
\HDU L + !! + !! O L QHDUO\ L + !! !! O !! !! L EODFN L MREV L ZRXOG L EH L ORW DQG L PRUH L WKDQ L
T !! !! O !! !! L +LVSDQLF L MREV L ZRXOG L EH L ORW DQG L DGGWLRQDO\ L WKH L ZRXOG L EH L
FRPPHQFHQW ZLWK L WKLV L DL PHGLXP L KRXVKROG L LQFRPH L VLJQL L FLDQW
GHFUHDHV L WKURXJKRW L WKH L FRPPXQLWHV L OLWHLG L LQ L WKH L UHSRUW L 6HQDWL
)LVRKHU L

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7KDN L \RX L OUK L &KOLUPDQ L \$QG L ZHUH L ++ L KHUH L ZH L JR L DJDLQ L RQ L URXOG L WR L
VR L , L DPL KDOSS\ L WKDW ZH L KOYH L DQ L RSSRUWQDW L WR L FRQWLOQH L TXHMLRQDQJ L ZLWK L
\RX L *HQHUDO L 3UXLMW L 1HEUDVND L PXFK L OLNH L 2NODKRPD L LV L DL UXUDOL WDWHL DQG L
ZLWK L PDQ L FDHV L WKH L FORHVW WRZQ L RU L WKH L CHLJKERU L FDQ L EH L ORFDWHL PLCHV L
DQG L VRPHWLPHV L KRXUV L DZD\ L

,Q L 1HEUDVND L RQH L RI L IRXUL MREV L LV L GLUHWQ L WLHG L WR L SURGXFWLRQ L DJULFXOWKH L
8QGHU L WKLV L DGPLQLWLDMLRQ L IDUPHUV L DQG L UDQFHUV L IHQW L HSHFLDO\ L WDUWHWGL
E\ L WKH L (3\$ L)RU L H[DPSOH L LQ L + !! P I P I L DQG L + !! P I O L (3\$ L UHJLRQ L VHJHQ L
FRQGXFWHG L DHULDO L VXUYHLOODQFH L RU L IO\RYHUV L RI L IHQGL \DUGV L LQ L P\ L WDWHL L
:KLOH L IO\LQJ L RYHUL P\ L WDWHL WKH L (3\$ L GRFXPHQW HG L WKHM L IDFLQWLVHV L ZLWK L
SKRWRJUDSKV L

7KLV L ZDV L YHU L GLVFRQFHJWLQ J L WR L PH L JLYHQ L WKDW PDQ L OLYHWRFN L SURGXFWUV L
LQ L 1HEUDVND L DOVR L OLYH L DQG L UDLVH L WKH L LDPLOLHV L RQ L WKHM L SURSHUWLVH L 1RW
RQD\ L ZHUH L WKHM L SURGXFWUV L ORW L QIRUPHGL EH IRUHKOQ L EXW WKH L (3\$ L KDV L
DOLHDG L GHCHUDWHL WKH L DXAKRULW L WR L FDJUW L RXW WKH L &CHDQ L :DWHU L \$FW L LQ L
1HEUDVND L WR L WKH L 6ADWHL 'HSQWPHQW RI L (FRQRPLF L + + L RU L (QYLURPHQWDO L
4XDWLW L

:KDW ZLOO L \RX L GR L WR L HQWXLH L WKDW WKH L (3\$ L WLFNV L WR L \WW L FRUH L PLWLRQ L DQG L
IXUWKHUPRUH L KRZ L ZLOO L \RX L ZRUN L ZLWK L WKH L UHJXODWHL FRPPXQLW L LQFOXGLQJ L
DJULFXOWKH L WR L EXLOG L WUXW DPRQJ L FRQWILWQFLHV L WKDW KOYH L EH Q L , L ZRXOG L
VD\ L WKH L VXEHW L RI L EXOO\ LQJ L WDFWLFV L E\ L WKLV L (3\$ L WKDW ZH L KOYH L QRZ" L
358,77 L 6HQDWL L DV L , L LGQFLDWHL LQ L P\ L RSHQDQJ L WDWHPHQW VRPH L FRUH L
WKHM L L I L FRQILUPHG L DV L DGPLQLWLDMLRQ L WKDW , L ZRXOG L VHN L WR L FRPSO\ L ZLWK L

&4 FRP[†] 6HQDWH^L (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLW^H^L +ROGV^L +HE 3DJH[¶] +L RI

2QH^L LV^L SXEOLF^L SDUWLFLSDWLQJ^L IXOOL SDUWLFLSDWLQ^L WR^L HQXUH^L WKDW^L DOO^L YRLFH^L DUH^L
KHDUG^L DV^L WKH^L (3\$^L FRQGXFW^L LWW^L DPAWLW^L ZIWK^L UHSHRW^L WR^L UXCHPDNLQJ^L
SDUWLFXODU\|

\$QG^L , L WKLOL WKDW^L SHUDSV^L ZKDW^L \RX^L DUH^L UHILULQJ^L WR^L LV^L D^L ODFN^L RI^L WKDW^L YRLFH^L
RU^L RSSRUWQJW^L LQ^L WKH^L CDW^L VHYHDO^L \HDU\| L \$QG^L VR^L , L ZRXOG^L ZRUN^L WR^L EXLOG^L D^L
FRQDERUDWLYH^L UHODWLQMKLS^L ZIWK^L WKRVH^L WWDHW^L DV^L , YH^L LQGLFDWHG\|

, L WKLOL WKH^L 'HSUWPHQW^L RI^L (QYLURPHQWDO^L 4XDOLW^L DW^L WKH^L WWDHW^L CHYHDL^L DUH^L
YDOXDEOH^L SDUQHUV^L WKDW^L ZH^L QHG^L WR^L UHMRUH^L WKHLU^L FRQILGHQFH^L LQ^L WKH^L
SDUQHUVKLS^L ZIWK^L WKH^L (3\$^L DQG^L WKHQ^L VHN^L WR^L OLWHQ^L WR^L WKH^L FRPPXQLW^L
FRQFHQW^L LQ^L DGGHWWLQJ^L DQG^L UHVSQGLQJ^L WR^L HQYLURPHQWDO^L LWXHV

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7KDN^L \RX\| L ,Q^L RQH^L RI^L KHU^L H\|LW^L LQHJULHZV^L (3\$^L \$QPLQLWUDARU^L *LQD^L
OF&DUW^L KDV^L DGPLW^HG^L WKDW^L VKH^L KDV^L KDG^L D^L EDG^L UHODWLQMKLS^L ZIWK^L
DJULFXOKUH^L DQG^L ZIWK^L WKH^L DJULFXOKUDO^L FRPPXQLW^L DQG^L VKH^L OLWHG^L LW^L DV^L RQH^L
RI^L KHU^L UHJUHW\|

, L WKLOL D^L EDG^L UHODWLQMKLS^L LV^L DQ^L XQGHUWWDWHPHQW^L LQ^L WKLV^L FDMH\| L 7KLV^L
DGPLQLWUDARQ^L (3\$^L SKLORVRSK^L LVL GLDPHWULFDO\| L RSSRWHG^L WR^L WKH^L LGHD^L
WKDW^L IDUPHUV^L FDQ^L BH^L JRRG^L VHZDUGV^L RI^L RXU^L CDQG^L L RXU^L ZDWHU^L L RXU^L
HQYLURPHQW^L DQG^L LQWHDG^L LW^L VWHFHG^L WKDW^L WKLV^L DGPLQLWUDARQ^L (3\$^L
ZDQWHG^L WR^L UHJXODWH^L DQG^L LQ^L VRPH^L FDMHV^L LW^L ORRNHG^L OLNH^L WKH^L ZDQWHG^L WR^L
SUHMHQW^L IDUPLQJ\|

7KH^L DJULFXOKUDO^L FRPPXQLW^L LVL ORNLQJ^L IRUZDUG^L WR^L D^L GHZ^L CHDGHUVKLS^L ZIWK^L
WKH^L (3\$^L DQG^L ZRUNLQJ^L ZIWK^L \RX\| L \$QG^L OU\| L &KOLUPDQ^L , L KDYH^L KHUH^L VRPH^L
WWDWHPHQW^L IURPL DJULFXOKUH^L RI IFLDOV^L DQG^L JURXSV^L WKDW^L , L ZRXOG^L OLNH^L
LQHJULHWG^L LQAR^L WKH^L UHFRUG\|

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:LWKRXW^L REMHWLQJ\|

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\$QG^L L L L , L PD\| L , L ZRXOG^L FORW^L E\| L TXRNLQJ^L DL IHZ^L RI^L WKRVH\| L -LPL 5HHM^L L WKH^L
2NOOKRPL 6HFUHWDU^L RI^L \$JULFXOKUH^L VD\|V^L WKDW^L | 6FRMW^L 3UXUW^L ZLOO^L FRQNLQXHG^L
(3\$V^L HI IRUW^L WR^L SURWHFW^L RXU^L HQYLURPHQW^L L EXW^L ZIWK^L UHSHRW^L WRZDUGV^L DQG^L
RZQHUV^L WD[SD\HUV^L PXQLFLSDWLH^L EXVLQHWHV^L DQG^L &RQUJHW\| |

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPILWHH L +ROGV L + 3DJH 9 L RI L

7KDW LVL QLFH L WR L KHDU L VLU L 7URV L 6ALOZDWHU L 1HEUDMD L &DMWCHPDQL 3UHMLGHQW
WDWHD L | 6LPSO\ L SWA L OU L 3UXWW VHH L FODUO L WKDW DJULFXOWUH L DQG L
HQYLURPHQW DUH L GRW RSSRVLQJ L WHUPV L EXW UDAKHU L WKH L DUH L
FRPSOHPHQWNU L

+H L ZLOO L ZRUN L WR L FXQWLYDH L WKH L UHDALRQMKLSV L ZKLFK L ZLOO L CHDG L WR L WKH L 8QWHL
6ADWHL CHDGLQJ L LQ L IRRGL DQG L TLEHU L SURGXFWLRQ L ZKLOH L LPSURYLQJ L WKH L
HQYLURPHQW LQ L ZKLFK L LW L LV L DFFRPSOLVKHG | | L \$JDLQ L , L DP L KDSS L WR L ++ L WR L ORNL
IRUDUG L WR L WKDW UHDALRQMKLS EHLQJ L HWADEOLVKHG L DJDLQ L VR L WKDW DOO L SDJWW L RI L
RXU L VRFHW L KHUH L LQ L WKLV L FRXQWU L FDQL SDJWFLSDW L DQG L UHFHLYH L WKH L
UHFRJQLWLQ L WKDW ZH L DUH L JRRGL WHZDUGV L RI L WKH L CDQG

, L FRQILUPHG L ZKDW ++ L ZKDW ZLOO L EH L \RXU L UHDALRQMKLS ZLWK L WKH L DJULFXOWUDO L
FRPPXQW " L \$UH L \RX L JRLQJ L WR L HQIRUFH L FXUHQW ODZV L DQG L ZLOO L \RX L DOVR L
UHMHW L WKH L OLPLW L WKDW ZH L KDYH L RQ L WRH L ODZV"

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EHM L RQ L ERWK L DFFRXQW L 6HQDWU L \$QGL DOVR L WKH L WKPH L WKDW , L PHQWLRQHG L LQ L
P L RSHQLQJ L WDWHPHQW WKDW , L ZRXOG L KLJKOLJKW DJDLQ L LV L WKDW ZH L ++ L ZH L QHG L
AR L UHMHW L WKLV L SDUDGLJP L WKDW L I L \RXUH L SURF L HQHJU L \RXUH L DQW+ L HQYLURPHQW L
L I L \RXUH L SURF HQYLURPHQW L \RXUH L DQW+ L HQHJU L

, L EHOLHYH L WKDW ZH L DV L D L FRXQWU L KDYH L GHPRQWLDWHL ZHMH L PDGH L JUHDW
SURJUHW L VLQFH L WKH L 9 → !! V L LPSURYLQJ L RXU L DLUL TXDOLW L DQG L SURWHRW LQJ L RXU L
ZDWHU L ; H L FDQL JURZ L DQ L HFRORP V L DQG L DOVR L SURWHRW DQG L EH L D L JRRGL
WHZDUG L RI L RXU L HQYLURPHQW L \$QGL ZH L QHG L WR L UHMWRUH L WKDW SURSHU L EDODQFH L
DQG L FRPPLWPHQW WR L ERWK L DV L ZH L VHN L WR L GR L RXU L MRE

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7KDN L \RX L \$V L , L ++ L DV L , L VDLG L HDUOLHU L HYHU L PHPEHU L RI L WKLV L FRPPLWPH L
EHOLHYH L LQ L FODQ L DLU L FODQ L ZDWHU L ; H L ZDQW DQ L HQYLURPHQW WKDW LV L ++ L WKDW L
LV L UHMHW L ZKHUH L ZH L FDQL PDQDJH L RXU L CDWUDOL UHMRXUHW L LQ L D L
UHSRQVLECH L PDQQHU L VR L WKDN L \RX L VLU

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EHM L ODDP

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7KDN L \RX L 6HQDWU L)LVRKHU L 6HQDWU L &DUGLQ

&4 FRP[†] 6HQDWL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPILWHL +ROGV^L +K 3DJH[¶] T[¶] RI^L

&\$5', 1^L

7KQNL^L \RX[¶] L OU^L &KOLUPDQ[¶] L OU^L 3UXLW^L, L ZDQW^L WR^L WU^L WR^L JHW^L \RXU^L
XQFHJWDQGLQ[¶] L , L KHDUG^L \RX^L VD^L WKDW^L \RX^L ZDQWHL^L WR^L VHL^L WKH^L UHJXODWLQV^L
DQGL ODZV^L SUHGLFDECH[¶] L VR^L WKDW^L WKH^L WDWHKROGHUV^L NORZ^L H[DWD^L ZKDW^L LV^L
UHTXLHG[¶] L VR^L WKHUV^L ODFN^L RI^L + + L WKHUV^L QR^L FRQIXVLRQ[¶] L 6R^L, L ZDQW^L WR^L
FRQFHQWUDW^L RQ^L WKH^L ZDWHUV^L RI^L WKH^L 8[¶] 6[¶]

?HFDXW[¶] L HYHUL^L VLQFH^L WKH^L 6XSUHPH^L &RXUW^L GHFLVLRQ[¶] L WKHUL^L KDV^L EHHL^L DQ^L
XQFHJWDQ^L DV^L WR^L ZKDW^L ZDWHUV^L DUH^L LQ^L IDFW^L VXEHW^L WR^L UHJXODWLQ^L E\ L WKH^L
IHGHUDO^L JRYHUQPHQW^L DQG^L ZKDW^L ZDWHUV^L DUH^L QRW[¶] L 'R^L \RX^L EHOLYH^L WKDW^L WKH^L
FODUW^L VKRXOG^L EH^L VHW^L E\ L WDWHUV[¶] L RU^L VKRXOG^L LW^L EH^L VHW^L E\ L UHJXODWLQV^L TURPL
WKH^L (3\$"

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6HQDWU[¶] L , L WKLQN^L LW^L DL JUHDW^L + + L DL JUHDW^L TXHMLRQ[¶] L DQG^L \RX^L ORRN^L DW^L WKH^L VHULH^L
RI^L FDHV^L JRLQJ^L EDFN^L WR^L %DYLHZ[¶] L DOO^L WKH^L ZD^L EDFN^L WR^L 5SDSCR[¶] L , L WKLQN^L
AKDW^L \RXUH^L H[DWD^L ULJKW[¶] L 7KH^L GHILQHLRQ^L LQ^L WKH^L &CHDQ^L :DWHU^L \$RW^L VD\VL^L WKDW^L
QDYLJDECH^L ZDWHUV[¶] L DUH^L ZDWHUV^L RI^L WKH^L 8QWHL^L 6WDWHV[¶] L 7KDW^L GRHMW^L SURYLGH^L
DL JUHDW^L GHDO^L RI^L FODUW^L WR^L WKRVH^L WKDW^L DGPLQLWHL^L WKH^L ODZ[¶]

\$QG^L, L WKLQN^L WKH^L (3\$ L WDNLQJ^L WHSV^L WR^L SURYLGH^L FODUW^L LW^L LPSRUWDQ[¶] L DEVHQW^L
&RQJUHW^L UHMSRQGLQ[¶] L 6R^L, L + + L , L WKLQN^L WKDW^L SHKDSV^L WKHUL^L LV^L D^L WLPH^L DQG^L
SODFH^L IRU^L \$UWLFOH^L, L UHMSRQH[¶] L &RQJUHWLRQD^L UHMSRQH^L WR^L ZKDW^L WKLV^L ERG^L
PHDQV^L ZKHQ^L LW^L VD\VL^L QDYLJDECH^L ZDWHUV[¶] L RU^L ZDWHUV^L RI^L WKH^L 8QWHL^L 6WDWHV[¶]

&\$5', 1^L

\$QG[¶] L RI^L FRXUH[¶] L WKH^L &RQJUHW[¶] L IRU^L ZKDW^L UHDVRQ[¶] L IRU^L D^L ORQJ^L SHULRG^L RI^L
ALPH[¶] L KDV^L QRW^L EHHL^L DECH^L WR^L UHMSRQ^L DV^L WR^L ZKDW^L ZH^L WKLQN^L WKH^L GHILQHLRQ^L RI^L
WKH^L ZDWHUV^L RI^L WKH^L 8[¶] 6[¶] L VKRXOG^L EH^L 7KH^L \$GPLQLWHL^L GLG^L FRPH^L IRUZDUG^L
ZINK^L SURSRVHG^L UHJXODWLQ[¶] L ZKLFK^L ZHUH^L UHMLWHL^L E\ L PDQ^L RI^L WKH^L
WDWHKROGHUV^L WKDW^L \RX^L DUH^L DZDUH^L RI[¶]

+RZ^L ZRXOG^L \RX^L + + L ZKDW^L GLG^L + + L ZKDW^L ZRXOG^L + + L KRZ^L ZRXOG^L \RX^L GHILQH^L WKH^L
ZDWHUV^L RI^L WKH^L 8[¶] 6[¶] " L :KOW^L ZDVL^L ZURQJ^L LQ^L WKH^L UHJXODWLQ[¶] L , L GROW^L ZDQW^L WR^L JR^L
AKURXJK^L DOO^L WKH^L GHADLOH[¶] L EXW^L WHO^L PH[¶] L \RX^L NQRZ[¶] L ZKHUH^L GR^L \RX^L WKLQN^L ZH^L
VKRXOG^L UHJXODWH["]

\RX^L DOUHDG^L VDLG^L PRUH^L WKDQ^L MKW^L QDYLJDECH[¶] L VR^L ZKDW^L + + L ZKDW^L + + L KRZ^L GR^L ZH^L
GHILQH^L LW^L +RZ^L GR^L \RX^L GR^L LW^L :KHH^L GLG^L WKH^L \$GPLQLWHL^L JR^L ZURQ["]

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPHWLH^L +ROGV^L + 3DJH[¶] T^L QRI^L

358,77 L

7KH^L FKDOOCHQH[¶] L XS^L XQALOL QRZ[¶] L ZLWK^L UHSHFW^L WR^L WKH^L FXUHQW^L UXCH[¶] L WKLVL^L
LQYROYHV^L DFWKDOO\ L DQ^L HJURU^L FDVH[¶] L WKH^L 8\ 5\ L FDVH^L ZKHUH^L -XWLFH^L 6FDOLD^L
ADNHQ^L DERXW^L WKH^L FRQWHEUDQFH^L WR^L ODWDPRXVHWW^L (3\\$ L ZKHUH^L WKH^L WHSV^L
ADNHQ^L E\ L WKH^L (3\\$ L WR^L WDNH^L WKH^L HQGDQJHUPHOM^L ILQGLQJ^L LQ^L + !! !! L WKDW^L GHQDW^L
ZLWK^L PRELCH^L + + L 7WCH^L , , L PRELCH^L VRXUFH[¶]

\$QG^L WKHQ^L OLN^L WKDW^L RYHU^L WR^L WKH^L 36' L SURJUDP^L ZDV^L VRPHWKLQJ^L WKDW^L -XWLFH^L
6FDOLD^L VDLG[¶] L WUDQVIRUPHG^L WKH^L WDNH^L DQG^L ZDV^L QRW^L ODZIXO^L RU^L FRQWILWLRQDO\ L
, L WKLQNL WKH^L VDPH^L WKLQJ^L SHUDOSV^L LV^L JRLQJ^L RQ^L ZLWK^L WKH^L FXUHQW^L UXCH[¶] L WKDW^L
AKHUH^L UHDOO\ L LVQW^L + + L ZKHQ^L \RX[¶] L ZKHQ^L \RX^L DU^L FODWLT\ LQJ^L GU^L FUHN^L EHGV^L LQ^L
6RWKH^L 2NOKRFD^L WKDW^L DU^L GU^L !! ! L SHUFHOW^L RI^L WKH^L \HDU[¶] L DV^L D^L ZDWHU^L RI^L
AKH^L 8QLWHG^L 6DNH[¶] L WKDW^L FODUL^L LV^L VRPHWKLQJ^L WKDW^L LV^L ▲ ▲ ▲

&\$5', 1 L

6LU[¶] L WKH^L DGPLQLWUDWLQ^L LQ^L IWW^L UHJDOWLRQ^L KDG^L FHJWDLQ^L H[FHSWLRQV^L WKDW^L WULHG^L
AR^L GHOL^L ZLWK^L WKDW[¶] L \RX^L REYLRXVO\ L GLGQW^L WKLQNL WKRVH^L H[FHSWLRQV^L ZKHUH^L
FODUL^L HQRXJK"

358,77 L

:HO[¶] L DFWKDOO\ L WKH^L 6LJW^L &LUFXLW^L VDLG^L WKDW[¶] L WKDW^L WKRVH^L FODUL\ FDFWLRQV^L ZHUH^L
QRW^L VXI\ LFLHQW[¶] L , L ZRXOG^L DJUH^L ZLWK^L \RX^L 6HQDWRL^L &DUGLQ^L WKDW^L , L EHOLHYH^L WKH^L
FODUL^L DURXOG^L WKLVL^L GHILOQWLRQ[¶] L WKH^L MUUVGLFWLRQ^L RI^L WKH^L (3\\$ L LV^L HWHQWLDO^L WR^L
JHW^L ULJKW^L DQG^L WR^L DGGUHW[¶]

\$QG^L DV^L , L LGQGLFWHG^L HDUOLHU^L WR^L VRPH^L TXH\WLRQV[¶] L WKH^L 6XSUHPL^L &RXUW^L LV^L
DFWKDOO\ L WDNH^L XS^L D^L PDWKH^L TURPL^L ODWW^L)ULG[¶] L IWW^L PRUH^L MUUVGLFWLRQDO^L DQG^L
QRW^L PHUW^L EDHG[¶] L EXW^L WKH^L UHVSQH^L E\ L &RQJUHW[¶] L WKH^L UHVSQH^L WR^L SURYLGH^L
FODUL^L SHUDOSV^L LV^L D^L YHU\ L LPSRUWDQW^L WHS^L WR^L WDNH[¶]

&\$5', 1 L

:HO[¶] L , L ZDQW^L WR^L SXUWXH^L WKLVL^L DQG^L , L WKLQNL PD\EH^L DV^L TXH\WLRQV^L IRU^L WKH^L
UHFRUG^L DV^L WR^L VSHFL\ LFL SURYLVLRQ^L WKDW^L \RX^L EHOLHYH^L VKRXOG^L EH^L LQ^L WKDW^L UXCH^L
AKDW^L ZRXOG^L EH^L WKDW^L SURSRVHG^L UXCH^L DQG^L , L DSSUHFLW^L UHVSQH^L WR^L WKDW^L
VR^L ZH^L FDQ^L WU\ L WR^L VHH^L ZKHUH^L ZH^L KHDGLQJ^L LQ^L \RXU^L WKRXJKW^L SURFH^L DV^L WR^L
KRZ^L \RX^L GHILOQH^L WKH^L UHJDOWHG^L ZDWHU^L RI^L WKH^L 8\ 6\ L 7KDW^L ZRXOG^L EH^L KHDSIXO^L WR^L
XV[¶]

&4 FRP[†] 6HQDWL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPPLWHL^L +ROGV^L + 3DJH[¶] T[¶] RI^L

358,77 L

\$QG^L ++ L DQG^L, L WKLQN^L 6HQDWL^L WKH^L UHDVRQ^L WKDW^L GLT^L LFXOW^L L DV^L \RX^L NQRZ^L LV^L
EHFDXH^L LQ^L WKDW^L SURFH^L ZKDW^H HU^L SURFH^L WKDW^L ZRXOG^L WDNL^L ++ L WDNL^L
SODFH^L L WKDW^L ZRXOG^L EH^L UXOH^L PDNLQJ^L L ZKLFK^L PHDQ^L WKDW^L WKHUHG^L EH^L
FRPPHQW^L DQG^L ▲ ▲ ▲

&\$5', 1 L

:HOO^L, L XQGHUWDQG^L WKDW^L, PL GRW^L WU^L LQJ^L WR^L JHW^L HYHU^L, L GRW^H HU^L 7^L ++ L MW^L
ZDQW^L WR^L JHW^L \RXU^L SKLORVRSK^L DV^L WR^L ZKHUH^L WKH^L ZDWHU^L RI^L WKH^L 8^L 6^L L OLGHV^L
ZRXOG^L EH^L GUDZQ^L DQG^L ZKHUH^L \RX^L WRRN^L H[FSALRQ^L WR^L WKH^L UHJDODRU^L HIIRUW^L
RI^L WKH^L 2EDPD^L DGPLQLWUDALRQ^L

/HW^L PH^L JHW^L WR^L WKH^L VHFQGL^L SRLQW^L L L^L, L PLJKW^L RQ^L IUDFNLQJ^L)UDFNLQJV^L DQ^L
LQWUHMLQJ^L DUHD^L EHFDXH^L LW^L WDNL^L UHJDODRU^L SULQFLSDO^L 7KHUHV^L YHUV^L IHZ^L
IHGHUDO^L UHJDODALRQ^L 7KHUHV^L EH^L QL^L ++ L DQG^L P\^ L WDNL^L KDV^L JDV^L GHSRV\W^L WKDW^L
FRXOG^L EH^L VXEHW^L WR^L IUDFNLQJ^L DQG^L 3HQQV\OYDQD^L RXU^L QHLJKERULQJ^L WDNL^L
KDV^L GRQH^L WKDW^L

7KHUHV^L EH^L VRPH^L SURECHPV^L ZIWK^L SROOXWLQJ^L ++ L SROOXWLQ^L LQ^L ZDWHU^L L :H^L
NQRZ^L DERXW^L WKH^L JDV^L UHOHDVM^L L LW^L DOUHDG^L EH^L QL^L WDNL^L DERXW^L L 7KHUHV^L
VRPH^L FRQFHQ^L SDQWLFXODU^L ZIWK^L GH^L ZHOO^L GUULOOLQ^L WKDW^L ZKHQ^L \RX^L LQMHW^L WKH^L
IOXLGV^L EDFN^L LQAR^L WKH^L FDYLWLV^L WKDW^L LW^L PD\^ L FDXH^L LQWDELOLW^L

,Q^L \RXU^L WDNL^L, L NQRZ^L WKH^L ZHOO^L DL GRW^L RI^L HDWKTXDNH^L 7KHUHV^L EH^L QL^L
WDNLQJ^L DERXW^L KRZ^L L ZKHQH^L WKH^L HDWKTXDNH^L ZHOO^L PRALYDWHG^L E\^ L WKH^L
IUDFNLQJ^L DFALYIWLHV^L RU^L GRW^L L +RZ^L ZHOO^L KDV^L WKH^L WDNL^L UHJDODRU^L IUDFNLQJ^L
DQG^L ZKHUH^L GR^L \RX^L VHH^L WKH^L IHGHUDO^L URCH^L VFRXOG^L EH^L LQ^L SURWHRALQJ^L RXU^L
HQYLURPHQW^L IURP^L IUDFNLQJ^L

358,77 L

:HOO^L, L WKLQN^L ++ L ,PL JODG^L \RX^L PHQWLRQHG^L WKH^L WDNL^L URCH^L EHFDXH^L ZMH^L
DFWDOO^L EH^L QL^L UHJDODALQJ^L K\GLDXOLF^L IUDFNLQJ^L LQ^L 2NODKRPD^L VLQFH^L WKH^L ODWH^L
¶ + !! V^L HDUO^L ¶ + !! V^L ,W^L ++ L LW^L GRW^L DL QHZ^L SURFH^L L +RULJRNQDOL^L GUULOOLQ^L L
EXW^L WKH^L K\GLDXOLF^L IUDFNLQJ^L SURFH^L LV^L GRW^L DQG^L PDQ^L WDNL^L UHJDODRU^L KDV^L EH^L
YHUV^L DJJUHWLYH^L DW^L UHJDODALQJ^L IRU^L DL QXPEHU^L RI^L GHFDGH^L

:IWK^L UHMSRMH^L WR^L ++ L UHMSRMH^L WR^L WKH^L VHLVPLF^L LWXH^L WKDW^L \RXU^L WDNLQJ^L
DERXW^L WKH^L HDWKTXDNH^L LQ^L 2NODKRPD^L WKH^L &RUSRUDALRQ^L &RPPPLWLRQ^L KDV^L
DFWDOO^L GHFDUHG^L RI^L OLPLW^L PHWDLQ^L GUULOOLQ^L DFALYIWL^L LQ^L KRW^L VSRW^L DOUHDG^L 7KHUHV^L
WDNL^L DQG^L YHUV^L DJJUHWLYH^L DSSURDFK^L

KWS ↑ ↑ ZZZ FT FRP[†] GRF[†] FRQJUHWLRQDQWUDQWULSW "¶ + SULQWWUXH ¶ + !!

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWHL^L +ROGV^L + 3DJH[¶] T^L RI^L

\$QG^L, L WRL^L VOUH^L WKLU^L FRQFHUQ^L, YH^L EH^L LQ^L FRQHUMDWLRQ^L ZLWK^L WKH^L
FRPPLWLRQHV^L DW^L WKH^L &RUSRUWLRQ^L &RPPLWLRQ^L 7KDW^L ZKR^L KDV^L
VXULVGLFWLRQ^L LQ^L WKLV^L PDMWHU^L \$QG^L WKH^L KDYH^L WDHQ[¶] L DJDLQ[¶] L YHU^L PHDOLQJ XOL^L
WHSV^L WR^L GHODUH^L RI^L OLPLW^L FHUWDLQ^L GUOLQJ^L DFALYLM^L WR^L WU^L WR^L VHH^L LI^L LW^L ZLOO^L IV
KHOS^L UHGXFH^L WKH^L QXPEHUL^L RI^L HDUAKTXONHV^L KOSHHQ^L LQ^L 2NOKRPD[¶] L DQG^L LW^L
KDV^L KHOSHG[¶]

&\$5', 1 L

7KDN^L \RX[¶] L 7KDN^L OU[¶] L □ □ □

%\$55\$662 L

7KDN^L \RX[¶] L 7KDN^L OU[¶] L ++ L WKDN^L \RX^L 6HQDWRU^L &DUGLQ[¶] L 6HQDWRU^L, QRIH["]

,1+2)(L

7KDN^L \RX^L OU[¶] L &KOLUPDQ[¶] L, L KDYH^L WR^L XQLTXH^L 6HQDWH^L UHTXHVW[¶] L VR^L GROW^L
WDUW^L P^L FORFN^L \HW^L 2QH^L LV[¶] L, L UHDOO^L EHOLHYH^L DQG^L SHKDSV^L, P^L D^L OLNH^L ELW^L
VHQMLWLYH^L WR^L WKLV^L EXW^L WKDW[¶] L OU[¶] L 3UXLWW^L LQHJULM^L KDV^L EH^L QL^L SXW^L LQWR^L TXHMLRQ^L
ZLWK^L WKH^L DFFXVDALRQ^L RI^L FRQWULEXWLQV^L WR^L KLV^L FDPSDLJQ[¶]

,GL OLNH^L WR^L NHSL^L LQ^L PLQG^L WKDW^L DOWKRXJK^L WKH^L RLO^L LQGXWU^L LVL D^L KXJH^L LQGXWU^L LQ^L
WKH^L 8QWHLG^L 6WDWH^L RI^L 2NOKRPD[¶] L 7KHY^L KDYH^L WKLQJV^L FDODH^L 3\$&V^L ZKHUH^L WKH^L
PLGGCH^L LQFRPH^L SHRSCH^L ZLOO^L VD[¶] L \HW[¶] L ZH^L DUH^L ++ L \RX^L NQRZ[¶] L WKH^L VXSSRUW^L
PH^L DOVR[¶]

%XW^L, L ZRXOG^L ++ L, L WKLQ^L WKDW^L ZH^L QH^L WR^L KDYH^L LQ^L WKH^L UHFRUG^L WKDW^L WKHUH^L DUH^L
VRPHWKLQJV^L WKDW^L DUH^L JRLQJ^L RQ^L WKDW^L VRXOG^L QRW^L EH^L JRLQJ^L RQ[¶] L DQG^L WKLV^L
DI IHW^L WKH^L 'HPRFDUDW^L DQG^L QRW^L WKH^L 5HSXEOLFDQ[¶] L 7KHUHV^L D^L JX^L QDPHG[¶] L
7RP^L 6MHU^L SK[¶] L DQG^L, P^L JRLQJ^L WR^L SXW^L WKLV^L LQ^L WKH^L UHFRUG[¶] L ZKR^L DFKDOO^L VDLG^L
KH^L ZDV^L JRLQJ^L WR^L SXW^L • ¶ !! L PLOORQ^L LQWR^L FDPSDLJQ^V L RI^L WKH^L LQGLYLGXDOV^L
ADONLQJ^L DERXW^L WKH^L JOREDO^L ZDPLQJ^L DQG^L ZKDW^L WKH^L H[SHW^L G[¶] L, L ++ L LQ^L !! ¶ ![¶] L
KH^L GLGOW^L GR^L WKDW^L

+H^L RQD^L SXW^L LQ^L ++ L, P^L VRUW[¶] L ¶ + L + + L • → ↑ L PLOORQ^L RI^L KLV^L RZQ^L PRCHV[¶] L ,Q^L +
KH^L ZDV^L WKH^L ODUJHW^L FRQWULEXWLQ^L SXW^L LQ^L LQ^L • ← ↓ L PLOORQ^L RI^L KLV^L RZQ^L PRCHV[¶] L
, P^L QRW^L JRLQJ^L WR^L UHDG^L WKLV^L EHDXW^L LW^L GRH^L UHICHW^L WKH^L QDPHV^L RI^L SHRSCH^L
ZKR^L DUH^L DW^L WKLV^L GDLV[¶] L, L DVL^L WKDW^L WKLV[¶] L \RX^L NQRZ[¶] L WR^L FRQH^L WR^L WKLV^L EHLQJ^L
HQWUHG^L LQWR^L WKH^L UHFRUG[¶]

%\$55\$662 L

KWS ↑ ↑ ZZZ[¶] FT[¶] FRP[†] GRF[†] FRQJUHWLRQDOWDQFULSW^{"¶} "¶ + SULQWVW^{XH} ¶ + !!

&4◀ FRP◀ 6HQDWHL (QYLURQPHQW◀ DQG◀ 3XEOLF◀ :RUNV◀ &RPPLWHLH◀ +ROGV◀ +HE 3DJH ¶ T4RI □

:WKRW- REMHWLRQ

,1+2)(
\$QRWKHU◀ WKLQJ◀ ++

8\$53(5
,GL UHD0O\◀ OLNH◀ WR◀ REMHWL++
L QHG◀ WR◀ DNL◀ IRU◀ DL FODULI LFDWLRLQ◀ IURP◀ P\◀ TULHQG◀
IURP◀ 2NODKRPD◀ 7KH◀ ++
L WKH◀ PRQLHV◀ WKDW◀ \RXUH◀ UHIIWULQJ◀ WR◀ ZHUH◀ WKRML
GRQDWLRQV◀ WKDW◀ ZHUH◀ GLVFORMHG◀ IXOO\◀ GLVFORMHG"

,1+2)(
2K◀ \HM◀ ,
EHOLHYH◀ WKH◀ ZHUH◀

8\$53(5
7KHQ◀ WKDW◀ GRHV◀ QRW◀ VRXQG◀ OLNH◀ GDNL◀ PRCH◀ WR◀ PH
7KHQ◀ WKDW◀ GRZQ◀ RQ◀ LW◀ DQG◀ \RXUH◀ H[DWD\◀ ULJKW◀ LQ◀ \RXU◀ UHMSRQH◀ WR
WKH◀ TXHVALRQ◀ H[FHSW◀ \RX◀ GLGQW◀ JR◀ IDU◀ HQRXJK◀ ,QL+!!¶+
UHGXFHG◀ WKH◀ HDWKTXDNHV◀ E\◀ T¶
SHUFHQW◀ \$QG◀ VR◀ ZH◀ DUH◀ GRLQJ◀ LQ◀ WKH◀
WDWHH◀ RI◀ 2NODKRPD◀ VRPHWKLQJ◀ WKDW◀ LV⁺+
L LV⁺+
L ZMHM◀ EHQL◀ FRPSOHPHQWHG◀
DERXW◀ WKH◀ IDFW◀ WKDW◀ ZH◀ DUH◀ WDNLQJ◀ WKH◀ ++
L WDNLQJ◀ WKHMH◀ ++
L WKHMH◀ DFWLRLQV◀ 6R
,GL OLNH◀ WR◀ PDNH◀ WKLV◀ DV◀ DL SDUW◀ ◀◀◀

%\$55\$662
:WKRW- REMHWLRQ

,1+2)(
L

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPPLWH^L +ROGV^L + 3DJH[¶] T^L RI^L

◀◀◀ L RI^L WKH^L UHFRUG[¶] L 1RZ[¶] L WKH^L RAKHUL WKLQJ^L , L ZDQW^L WR^L EULQJ^L RXW^L L DQG^L , YH^L GRQH^L AKLV^L EHIRUH^L EXW^L , L ZDQW^L JRLQJ^L WR^L GR^L LW^L XQWLO^L SHRSOH^L NSHW^L WDNLQJ^L DERXW^L WKH^L VFLHQWLWW^L DQG^L DOOL^L WKH^L VFLHQFH[¶] L DQG^L DOOL^L WKH^L VFLHQWLWW^L ++ L DQG^L , L NQRZ^L WKDW^L SHRSOH^L ZDQW^L WR^L EHOLHYH^L WKDW^L

%W^L , L UHPPHEH^L VR^L ZHOO[¶] L \RX^L NQRZ^L ++ L JR^L DKHDG^L DQG^L WDQW^L WKH^L FORN[¶] L WKDW^L ILQH^L ++ L , L UHPPHEH^L VR^L ZHOO^L ++

♂ 81.12:1 □ L

:H^L MAIW^L ZDQW^L WR^L PDNH^L VXUH^L WKDW^L WKH^L FORN^L GRHMW^L MAIW^L JHW^L WARSSHG^L IRU^L WKH^L 5HSXEOLFDQV^L DQG^L UXQV^L IRU^L XV[¶]

,1+2)(L

<RAUH^L ++ L \RXUH[¶] ◀◀

♂ 81.12:1 □ L

:HOPRH^L IRUPH^L FKOLU^L ◀◀

,1+2)(L

<DK[¶] L \RXUH^L DL++L \RX^L DUH^L DOH^L , L ZRXOG^L VD\ L WKDW^L WR^L P\ L TULHQG[¶]

♂ /\$8*+7(5 □

,1+2)(L

\$Q\ZD\¶ L , L FDQ^L UHPPHEH^L ZKHQ^L , L ZDVL JRLQJ^L WR^L JR^L RYHU^L WR^L ++ L ZLWK^L HYHU\ L \HDL^L WKH^L 8[¶] 1[¶] KDV^L DL ELJ^L SDUM[¶] L WKH^L LQYIWH^L HYHU\ RQH^L WR^L FRPH^L ++ L FRPH^L LQ^L DQG[¶] L , L ZDVL JRLQJ^L WR^L JR^L WR^L &RSHQKDQH^L WR^L EH^L WKH^L RQH^L PDQL WUXAK^L VTXDG[¶] L ZKLFK^L , L GLG^L DQG^L , L ZHOM^L RYHU^L WKHUH[¶]

%W^L GXULQJ^L WKDW^L WLPH[¶] L ULJKW^L EHIRUH^L , L CHW[¶] L , L DMHG^L WKH^L DGPLQLWUDWRU^L RI^L WKH^L (3\$[¶] L WKH^L MRE^L WKDW^L \RXUH^L , L EHOLHYH^L JRLQJ^L WR^L KDYH[¶] L /LVDL -DRMVRQ[¶] L , L VDLG[¶] L , L KDYH^L DL IHLQJ^L RQFH^L , L CHDYH^L WRZQ^L \RXUH^L JRLQJ^L WR^L FRPH^L XS^L ZLWK^L DQ^L HQEDQJHUPHOM^L TLQGLQJ^L DQG^L \RXUH^L JRLQJ^L WR^L JLYH^L \RX^L MAIW^L LFDWLQ^L IRU^L JHWLQJ^L LQYROMHG^L LQ^L WKLV^L ++ L LQ^L WKLV^L LWXH[¶]

\$QG^L WKH^L VPLQH[¶] L VR^L , L FRXOG^L WHOL^L LW^L ZDVL WUXH[¶] L \$QG^L , L VDLG^L WKDW^L ZKHQ^L \RX^L GR^L AKLV[¶] L LW^L KDV^L WR^L EH^L EDHG^L RQ^L VFLHQFH[¶] L 7HOD^L PH^L WKH^L VFLHQFH^L WKDW^L \RX^L DUH^L JRLQJ^L WR^L XH^L IRU^L WKLV[¶] L \$QG^L VKH^L VDLG[¶] L ZLWK^L WKH^L , 3&[¶] L , QWIIJRYHJQPHQDO^L 3DQHO^L RQ^L 8OLPDWH^L &KDQJH[¶]

&4 FRP+6HQDWH (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPLWTH L +ROGV L + 3DJH P T L RI L

1RZ L DV L OXFN L ZRMOGL KOYH L IWA L LQ L P V L OXFN L CRM WKLW L ULJKW L DMHU L WKDW L LV L ZKHQ
&OLPDWH JDWHL FDPH L DQG L WKDW L ZKHQ L IWA ZDV L GLVFORHG L WKDW L WKH L
LQGLYLGXDO L WKH L VFLHQWLWW L LQ L ,3& L ULJJHG L WKH L QXPEHUV L DQG L FDPH L XS L ZLWK L
VXFK L DQ L RXWLDJHRXV L OLH L LQ L WHUPV L RI L ZKDW L FDVHV L JOREDO L ZDPLQ L DOD L RI L
WKDW L DQG L ,OOL MHW L UHDGL D L FRXSCH L RI L WKPL KHLK

2QH L RI L WKH L SKVLFLLWW L LQ L WKH L ,3& L VDLG L | &OLPDWH JDWHL ZDV L D L IUDXL RQ L D L
VFDOLH L ,YH L QHYHUL VHHQ L EHIRUH L | L &OLYH L &RRN L ZLWK L WKH L)LQQFLDO L 7LPHV L VDLG L
| 7KH L FORVHGPLQGHQHVV L RI L WKHM L VXSSRVHG L PHQ L RI L VFLHQFH L LV L VXUSULV L QJ L
HMQ L WR L PH L WKH L WALQ L RI L LQWHDHRWDO L FRUXSALRQ L LV L RYHUSRZHULQJ |

\$QG L WKH L 8 L 1 L + + L WKH L 8 L . L 7HCHJUDSK L WKDW L RQH L RI L WKH L ODUJHW L LQ L WKH L 8 L . L
AKH L SXEOLFDALRQ L IWA VDLG L | ,W L WKH L ZRUW VFLHQWL L F L VFDQGDO L RI L RXU L
JHQHJDALRQ | L 1RZ L QRERG L WDOW L DERXW WKDW L %&W WKDW L WKH L VFLHQFH L WKDW
AKH L DUH L WDOWLQ L DERXW L DQG L , L UHDQO L EHOLYH L IWA L CHFHWDO L WR L KOYH L WKDW DV L
D L SDW L RI L WKLV L UHFRUG L RI L WKLV L PHWLQJ

1RZ L *HQHUDO L 3UXLW L WKH L + + L LQ L + !! P L WKH L (3\$ L DQG L WKH L 1DWLRQDO L +LJKZD) L
7UDI L LF L 6DIHW L \$GPLQLWUDALRQ L LWXHG L XSGDWHL + + L XSGDWHL IXHO L HFRQRPA L
WDQGDUGV L WKDW ZHUL WKH L UHIXOW RI L D L FRPSURPLVH L DQG L WKDW FRPSURPLVH L
ZDV L BHVHQL WKH L 2EDPD L DGPLQLWUDALRQ L WKH L DXWRPDNUV L LQ L WKH L WDWH L RI L
&DOLIRUQD L 5LJKW

\$QG L WKH L SDW L RI L WKLV L GHDO L UHTXLLHG L DL UHMLHZ L RI L WKHM L UHJXODALRQV L LQ L + !! P L
EHIRUH L + + L WKHM L DUH L WKH L ZRUGM L CRM PLQH L + + L EHIRUH L DQ L QZ L WDQGDUGV L
ZHUL SW L LQ L SODFH L \$MHUL ORVLQJ L WKH L HOHWALRQ L KRZHYHUL L WKH L 2EDPD L
DGPLQLWUDALRQ L EURNH L WKH L GHDO L E \ L SUHPDWKHQ L LWWLQJ L QZ L UHJXODALRQ

7KLV L GHFLVLRQ L ZDV L PDQH L XQH [SHWHD] L DQG L ZHOO L RYHUL D L VHDL EHIRUH L WKH L
(3\$ L VDLG L WKDW WKH G L PDNH L WKH L GHWUPLQDWLRQ L 7KLV L VKRUWQHG L D L WLPH L
IUDPH L DQG L SURFHVL L L F RQFHQLQJ L 6R L OU L &KOLUPDQ L , L GR L DVN L
XQDQLPRXV L FRQHOMW WKDW WKH L SUHYLRXV L (3\$ L WLPHOLGH L IRU L WKH L H [SHWHD L
DWLRQ L RQ L WKH L PLG WHUP L UHMLHZ L BH L LQFOXGH L LQ L WKH L UHFRUG

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:WKRW REMHWALRQ

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\$QG L \$MRUQH L *HQHUDO L 3UXLW L DV L DGPLQLWUDALRQ L ZLOO L VRX L ORRN L LQW L WKLV L
PDWHL WR L VHL ZKHQH L WKLV L HMUHPH L DWLRQ L ZDV L DSSURSDWHL RU L D L KDW L
SDWLFDO L GHFLVLRQ"

KWS ↑ ↑ ZZZ FT FRP↑ GRF↑ FRQJUHWLRQDO L DQG MULSAV "P L SULQWVWUH P + !!

&4 FRP 6HQDWH (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPILWTH L +ROGV L + 3DJH P T L RI L

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6HQDWRU L DV L \RX L LQGLFDWHG L WKH L REOLJDWLRLQ L ZDV L WR L PHW L WKH L 1RYHPEHU L
+ !! !! ← L PLG+ WHUP L UHYLHZ L ++ L + !! ← L PLG+ WHUP L UHYLHZ L DQG L , L WKLQNL WKH L WKG\ L WK
ZDV L FRPSCHWHD L LW ZDV L TLQLVKHG L 'HHPHEHU L ! ! WK L DQG L WKH L LWXHG L WKHLU L
TLQGLQJL ZWKLQ L P + L GDV\

7KDW L WPH L SHURGL LV L VRPHWKLQJ L ,PL CRW L VXUH L WKDW L WKDW CRUPDOO\ L KDSHVQ L
DVL IDUL DVL WKH L WPH L WKH L YHORFLW L RI L P + L GDV\ L EXW L PHUWW L UHYLHZ L DQG L , L
ZRXOG L UHYLHZ L WKDW L \HV\

,1+2)(L

:HOD L WKH L IROORZ L XS L TXHMLRQ L ZRXOG L EH L ZRXOG L \RX L FRPPLW L WR L VILWILQJ L CRZQ L
ZWK L WKH L 7UDQVSRUWDWLRLQ L 6HUFHWDU\ L (ODLGH L &KDR L DQG L ++ L ,YH L DOUHDG\ L WDONHG L
AR L KHU L DERXW L WKLV L LQFLGHQWDOO\ L ERWK L RI L WKH L ZLOO L EH L FRQILUPHG L ,PL
FRQYLQFHG L DQG L \RXUH L ZRUNLQJ L WR L DGGUHW L WKH L LPSDFW L RI L WKH L (3\$ L
GHFLVLRQ L RQ L DXWPRELOH L PDQXIDFWXUHV L DQG L FRQVXPHUV L ▲ ▲ ▲

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◀ ▲ ▲ L DQG L ZRUNHG L ZWK L KHU L RQ L WKDW ++ L LQ L WKDW LWXH\

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\$EVROXWHO\◀

,1+2)(L

\$OO L ULJKW\ L 9HUV L JRRG\ L 7KDN L \RX L OU\ L &KOLUPDQ\

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7KDN L \RX L YHU\ L PXFK\ L 7KDN L \RX L OU\ L 3UXLW\ L , L MXW L ZDQW L WR L MXP S L LQWR L RQH L

%22.(5 L

7KDN L \RX L YHU\ L PXFK\ L 7KDN L \RX L OU\ L 3UXLW\ L , L MXW L ZDQW L WR L MXP S L LQWR L RQH L
RI L WKH L DUHDV L WKDW L \RX YH L VDLG L LV L DL SUQFLSCH L SDUW L RI L RQH L RI L \RXU L
DFKLHYHPHQW\ L , Q L \RXU L RSHQLQJ L WDWHPHQW L \RX L VDLG\ L WKDW DV L DMRUCH\ L

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPILWTH^L +ROGV^L +3DJH[¶] T^L RI^L

JHQHUDO^L \RX^L FRQIURQWHG^L ZLWK^L DQ^L LPSRUWDQW^L ZDWHU^L TXDOIW^L LWXH^L RQ^L WKH^L
VHQLF^L, OOLQLVL^L 5LYHUL^L DERXW^L WKH^L KLJK^L SKRVSKRURXV^L CHYHOV^L WKOW^L ZHUH^L
FDXVLQJ^L DL UDQJH^L RI^L SUREOHP^L WKOW^L FRPH^L IURPL^L WKH^L PDQXH^L SULQFLSDOO\^L IDUP^L
DQLPDOV[¶]

\$QG^L \RX^L JR^L RQ^L WR^L WWDWH^L WKOW^L WKLVL^L ZDV^L DQ^L KLWRULF^L DJUHPHQW^L WR^L FCHDQ^L XS^L
WKH^L ULYHUL^L, W ZDV^L LQ^L \RXU^L RSHQLQJ^L WWDWHPHQW^L DQG^L D^L QXPEHUL^L RI^L WKH^L
GRFXPHQW^L WKOW^L \RX^L SURYLGHG^L <\RX^L DOVR^L GHMFULEHG^L WKH^L DJUHPHQW^L ZLWK^L
\$UNDQMDV^L DV^L DQ^L LPSRUWDQW^L DJUHPHQW^L WR^L UHGXFH^L WKH^L SROOXALRQ[¶]

\$JDLQ^L WKOW^L ZDV^L D^L UHMXOW^L IURPL^L SRQWU\^L JURZHM[¶] L DQG^L, P^L TXRALQJ^L \RX^L
DFAWDOO\^L GLUHFWD[¶] L | 7KOW^L ZDV^L RFFXWLQJ^L DV^L D^L UHMXOW^L RI^L SROOXALRQ^L IURPL^L SRQWU\^L
JURZHM[¶] | L \$UH^L \RX^L IDPLOLDU^L ZLWK^L WKLV"

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<HM[¶] L DOVR^L GLVFKOUJH^L IURPL^L PXQLFLSDOWLHV^L LQ^L 1RUNKZHW^L \$UNDQMDV^L DV^L ZHOO[¶] L
WKOW^L <<[¶]

%22.(5 L

, L WKLN^L WKOW^L DQ^L LPSRUWDQW^L SRQW[¶] L \HV[¶]

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<HD[¶]

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, L ZRXOG^L OLNH^L WR^L DWN^L \RX^L MKW^L VRPH^L TXHMLRQ^L DERXW^L WKLV[¶] L EXW^L, L WKLN^L LWL^L
LPSRUWDQW[¶] L, L UHDOO\^L GXJ^L LQAR^L WKLV^L DQG^L GLG^L VRPH^L UHMHDUFK[¶] L &DQ^L \RX^L KROG^L ++ L
KROG^L WKLV^L XS[¶] L, L MKW^L ZDQW^L WR^L JR^L WKURXJK^L ZLWK^L PI^L FROOHDJXH^L ZKOW^L WKH^L IDFW^L
SDWHUQ^L LV^L WKOW^L CHDG^L WR^L ZKOW^L ++ L WKLV^L PRPHQW^L ZKHUH^L \RX^L LQHUYHGHG[¶]

\$QG^L LW^L UHDOO^L L WWDWH^L ZLWK^L D^L 6XSUHPH^L &RQJW^L GHFLVLRQ^L ZD^L EDFN^L LQ^L ¶ L
\$UNDQMDV^L Y^L 2NODKRPD[¶] L, L LPDJLQH^L \RXUH^L IDPLOLDU^L ZLWK^L WKH^L 6XSUHPH^L &RQJW^L
GHFLVLRQ[¶] L WKOW^L WKH^L UHMXOW^L EHWHHQ^L WKRVH^L WR^L WWDWH^L WKOW^L KHQG^L WKOW^L
EDMLFDOO\^L XS^L ULYHUL^L WWDWHM[¶] L VXF^L LQ^L \$UNDQMDV^L PXW^L FRPSO\^L ZLWK^L WKH^L ZDWHU^L
TXDOIW^L WWDQGDUGV^L WKOW^L DUH^L DGRSWHG^L E\ L GRZQJLYHUL^L WWDWH^L DQG^L WKH^L
DSSURYHG^L E\ L WKH^L (3\$[¶]

<\RXUH^L IDPLOLDU^L ZLWK^L WKOW^L

KWS ↑ ↑ ZZZ[¶] FT[¶] FRP[†] GRF[†] FRQJUHWLREDOOWLQJULS[¶] "¶" L SULQWWUXH ¶ ¶ !!

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPPLW^H^L +ROGV^L +^H 3DJH[¶] T^L RI^L

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,P^L IDPLOLDU^L ZLWK^L WKH^L O\WJ\DWLRQ[¶] L \HV[¶]

%22.(5 L

6R^L + + L VR^L DM\HUL W\K\W^L 6XSU\PH^L &RXUW^L GHFLVLRQ^L HI\HFLYH^L -XO\^L ¶ * L + !! + + L
2NODKRPD^L D\W\W\W^L GLG^L DGRSA^L D^L ◀ !! T → L ZD\HUL TXDOLW^L WDQGDUG^L IRU^L
SKRVSKRURXV^L DQG^L LPSRUWDQW^L WKH^L JDYH^L D^L GHFDGH[¶] L WHQ^L \HDU^L SKOMH^L LQ^L
SHULRG^L EH\RH^L IXOOL FRPSOLDQFH^L ZDV^L UHTXLUGH[¶] L \$QG^L WKHQ^L LQ^L + !! + + L \RXU^L
SUHGHHW\W^L 'UHZ^L (GPROGVRQ^L QH\RAWDHG^L DJUH\PHQW^L ZLWK^L \$UNDQDV[¶] L
ZKLFK^L ,YH^L UHDG^L FDOOHG^L WKH^L 6\W\W\PHQW^L RI^L -RLQW^L 3ULQFLSCH^V^L DQG^L \$WALRQ[¶]

O\^L &KDLU[¶] L ,GL OLNH^L WR^L HQHUL W\K\W^L IRU^L WKH^L UHFRUG[¶]

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:W\KRW^L REMHW\W[¶]

%22.(5 L

\$QG^L WKHQ[¶] LQ^L + !! + + L WR^L JLYH^L PRUH^L WH\W^L WR^L WKL^L + + L WKL^L JRHV^L WR^L Z\W\W^L \RX^L
ZHU^L VD\LQJ^L DER\W^L PXQLFLSDOLW\H[¶] L \W^L FUHDW\G^L SKRVSKRURXV^L OLPLW^L IRU^L
PXQLFLSDOL GLVFKD\W\H[¶] L \$QG^L W\K\W^L + !! + + L DJUH\PHQW^L DOVR^L W\K\W^L ,YH^L UHDG^L
AKURXJK[¶] L DOVR^L W\W\W\W^L W\K\W^L 2NODKRPD^L ZLOO^L UH\HYDOXW\H^L WKH^L ◀ !! T → L FULW\HLD^L IRU^L
W\W\W\W^L SKRVSKRURXV^L LQ^L 2NODKRPDV^L ULYHUV^L E\^L + !! ¶ + + L

\$QG^L WKHQ[¶] L WKL^L LVL D^L ELJ^L SDUW^L LQ^L DFFRUGDQFH^L ZLWK^L WKH^L + + L ZLWK^L WKH^L LQW\W\W\W\W[¶] L
AKH^L PDQGDWH^L RI^L WKH^L 6XSU\PH^L &RXUW^L WKH^L (3\\$^L JDYH^L \W\W^L DSSURYDO^L WR^L
2NODKRPDV^L ◀ !! T → L SKRVSKRURXV^L WDQGDUG[¶] L 7KLV^L ZDV^L FULW\FDOL EHFDXVH^L
XQGHU^L WKH^L 6XSU\PH^L &RXUW^L GHFLVLRQ[¶] L QRZ^L 2NODKRPD^L KDG^L WR^L + + L KDG^L D^L ZD\HUL
TXDOLW^L WDQGDUG^L DSSURYH^G^L E\^L WKH^L (3\\$^L W\K\W^L ZDV^L QRZ^L HQIRUPHDECH^L DJDLQW^L
XS^L W\W\W\W^L OLNH^L \$UNDQDV[¶]

1RZ[¶] L CH\W^L IDW^L IRUZDUG^L WR^L \$SULO^L + !! ¶ + + L 2NODKRPDV^L :D\HUL 5HMRXUH^V^L

%RDUG^L UH\YH\Z\G^L WKH^L EH\W^L VFLHQWL\LF^L LQIRUPDWLRQ^L DYDLODECH^L LQ^L + !! ¶ + + L ,W^L
UH\HYDOXW\H^G^L DQG^L UHDITLUPHG^L WKH^L ◀ !! T → L SKRVSKRURXV^L WDQGDUG[¶] L O\^L &KDLU[¶] L ,
ZDQW^L WR^L SW^L LQ^L DQ^L H\HFXW\YH^L VXPPDU^L RI^L W\K\W^L UH\YH\Z[¶]

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:W\KRW^L REMHW\W[¶]

&4 FRP 6HQDWH (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWTH L +ROGV L + 3DJH P + LI RI L

322. (5) L

\$QGL WKHL RQL -XQHL T !! ♀ ± !! ♀ ± ♀ L WKHL WHQL \HDUL SKOMHL LQL JRLQJ L EDNL WRL WKHL
6XSUHPH L &RXUW GHFLVLRQ ♀ L WKHL DFLRQV L E\ L 2NOKRPD ♀ L WKHL WHQL \HDUL SKOMHL
LQL SHURGL ZDV L FRPSCHWGL LQL IXOOL FRPSOLDQFH L ZLWK L WKHL ◀ !! T → L EHDPH L
UHTXLHG L ,W EHDPH L QRZ L ZKOW ZDV L UHTXLHG L E\ L ++ L E\ L WKHL WADWHM

6R L MXW WR L UHFDL DDL RI L WKLV L EHDXVH L IAWL D L ORW L ± !! L \HDUV L 2NOKRPDV L (3\$ L
DSSURYHG L D L ◀ !! T → L SKRVSKRURXV L WADQGDUG ♀ L PRUH L WKDQ L WR L GHFDGHV L LQL WKHL
PDNLQJ L ,W KDW L MXW EHQ L UHDITLUPHG L E\ L WKHL 2NOKRPD L :DWHU L 5HXRXUFHV L
YRDUG ♀ L DQG L WKHL WKHL WHQL \HDUL FRPSOLDQFH L SHURGL SKOMHL LQL KDG L H[SLUHG

\$QGL VR L ZKHQ L \RXL VDGL WKDW \RXL KDG L HQHWHG L LQWL D L VHFRQG L DJUHHPHQW
ZLWK L \$UNDQDV L WKDW LQL \RXU L ZRUGV L | :DV L D L KLWRULF L DJUHHPHQW WR L FODQ L XS L
WKHL ULYHU ♀ L WKDW ZRUGL UHGXFL SROOXLRQ L TURPL SRXOVA L JURZHV |

\$QGL WKLV L LV L WKHL TXHVALRQ L WKDW , L KOYH L VLQFHUHO ♀ L , L SXOCHG L WKDW ± !! !! !! L
DJUHHPHQW DQG L UHDGL IW + + L H[FXVH L PHL + + L WKHL ± !! ♀ T L DJUHHPHQW DQG L UHDGL IW
DQG L IW ZDV L WADQGDUG L WR L VHL WKDW IW DFLDOO \ GLGQW WDNL DQ\ L WHSV L WR L UHGXFL
SROOXLRQ L EXW DFLDOO \ RQ\ L SURSRVHV L DGRKHU L XQGHFHVWDV L WADQGDUG L DQG L
DMWPSW L WR L VVSHQG L FRPSOLDQFH L WKDW ZDV L WR L GHFDGHV L LQL WKHL PDNLQJ L
ZLWK L WKHL ◀ !! T → L WADQGDUG

,W VVSHQG L FRPSOLDQFH L IRU L \HW DGRKHU L WKHU L \HDUV L RI L SROOXLRQ L ,VQW
WKDW WUXH L WKDW ♀ L WKDW WKHL DJUHHPHQW GLG"

358,77 L

,W LVQW L GHQDWRU L 7KHUH L ZDV L DFLDOO \ QR L HQIRUFHPHQW RI L WKHL ◀ !! T → L WADQGDUG L
ADNLQJ L SDFH L RQL \$UNDQDV L VLGH L RI L WKHL ERUGHU L 7KHUH L UHDVRQ L + + L \RXL UHJHU L WR L
WKHL PHPRUDQGP L RI L XQGHU WADQGDUG L , L DFLDOO \ L KOYH L D L VHFRQG L WADWHPHQW
RI L SULQFLSCHV L KHUH L EHIRUH L PH L DV L ZHOO

7KDW H[SLUHG L LQL ± !! ♀ ± ♀ L ♀ T L WPH L IUDPH L DQG L WKDW L SHMHQWGL P\ L RI L LFH L
ZLWK L WKHL RSSRUWKQW L WR L JR L WR L \$UNDQDV L WR L HQVLUH L WKDW WKHL ◀ !! T → L WADQGDUG L
ZRUGL DFLDOO \ EH L HQIRUFH L TURPL D L WADWH L ODZ L SHVSHFWLYH L RQL WKDW VLGH L RI L
WKHL ERUGHU

7KDW KDG L QHMU L WDNL QDFH L LQL KLWRULV L \RXL PHQWLRQH G L WKHL (3\$ L 7KHUH L
ZDV L QR L HQIRUFHPHQW DFLRULW L WKDW KDG L WDNL QDFH L RQL WKDW SKRVSKRURXV L
QHYHOL E\ L WKHL (3\$ L 2NOKRPD L KDG L IW DVL \RXL + + L DVL \RXYH L LQGLFDWGL DVL D L
WADQGDUG L EXW IW ZDV L QRW EHLQJ L HQIRUFH G L XSWLHDPL LQL \$UNDQDV L DQG L WKDW L
WKDW WKHL DJUHHPHQW DQGUHWHV

&4 FRP 6HQDWL (QYLURQPHQW DQGL 3XEOLF :RUNV &RPPLWHL +ROGV + 3DJH + LPRU

%22. (5)

Ou 3UXLWW VR , GRQW KDH WKL VHL RUL WKL WDXWHL RU WKL
JUDQGPLOGUHQ RI 6HQDWL ,KRIH VR , FDQW JR RYHU P WLPH %XW , ZLOOL
VDI WKLV L LQ P CHW URXQG L , ZLOOL JR EDN L QWR WKLVL EHDXVH WKL
GRFXPHQW GRQW VHP FRQMLWQW DW DOOL ZLWZK WKL WDXWHL WKL
LQ P CHW URXQG RI TXHMLRQLQJ WR JR L QWR DL OLMCH ELW GHSHUL QWR WKLVL
KLWRULF VHWDPHQW 7KDNL RXO Ou &KDLU

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7KDNL RXL 6HQDWL %RRNHU L , ZRXQG L QWRGXFH IRU WKL UHFRUG DQL DJWLFCH
AKDW DSSHDLHG L QL WKL 7XOVD :RUG L WKLVL SDWV -DQXDU \P + \P + !! \P + \P + JRLQJ ZD L
EHVRQG WKL + !! L \HDUV RI WKL SDQH L EXW RI WKL VOLGH

%XW T T L \HDUV DQL LWW E\ (GL)LWH L ZKR VHYHG DV WKL DJHCF L
DGPLQLWLDWU L RI WKL 2NOOKRPD L 6FHQLF L 5LYHUV &RPPLWLRQ L IURP L
6HSWPHU L \P + T L XQALO -XCH + !! \P + \P + T T L \HDUV \$QGL KL VL WWDPHQW LQ WKLVL
RS+ HG WKL KHL ZURAH L LV | , KDH IRXQG WKL 3UXLWW KDW DOZDV L GRQH ULJKW E\ L
RXU VHQQLF L ULYHUV

+H L KDW L IRU WKL IUXW WLPH HYHU L KHL KDW JRMHQ WKL WWDH RI L \$UNDQMDV L
ZKLFK L KDSHVW L WR KDH SDWV RI WKL WWDHV L ZMH GHLJQDWGL DV VHQQLF
ULYHUV L RULJLQDWLQJ L LQ DQL ICRLQJ L WKLXJK WKL WWDH WR DJUH L WR
2NOOKRPD L 6FHQLF L 5LYHUV L 3KRVSKRLRQV L 6DQGDUG L DQL LQFHGLECH
HQYLURQPHQW DFRPSOLVKPHQW L WKL HI IHW RI L ZKLFK FDQCRW EH
XQGHUWWDHGI | L 6HQDWL 5RXQGV

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7KDNL RXO Ou &KDLUPDQ L \$MRUCH L *HQHDO 3UXLWW L LQ \$XJXW RI + !! \P + \P + L
AKHL (3\$,QSHWRU *HQHDO L IRXQG WKL WKL (3\$ KDG IDLOHG WR IROORZ L
AKLURXJK L ZLW L LWW FRPPLWPHQW WR XSGDW L LWW + !! \P + !! L /LHF FCH \$QDOLV L IRU L
FRQ L HWDGROL DQL KDW DOVR L IDLOHG WR SHURUP L LWW OHJDOD L UHTXLUGH
FRPSUHHQMLYH L WKG L RQ WKL HQYLURQPHQW HI IHW RI L WKL 5)6 L WKL
5HQHDECH)XDL 6DQGDUG L (3\$V L QIRUPDWLRQ L RQ HWDGROL OLIH F FCH
HPLWLRQV L LV L QDFFXUDW L DQL LWW RXWEDWGI

&4 FRP[†] 6HQDWL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWHL^L +ROGV^L + 3DJH[¶] + URI^L

7RGD\VL EHWW^L DYDLODECH^L VFLHQFH^L VRZV^L WKDW^L ECHQGLQJ^L HAKDORO^L LQWR^L
JDVROLQH^L FDQ^L VLJQLI LFDQW^L UHGXFH^L JUHQRXVH^L JDHV^L +RZHMHU[¶] L WKH^L (3\$^L
KDV^L IDLOHG^L WR^L XSGDW^L LWW^L RZQ^L VFLHQFH^L ZLWK^L PRW^L UHFW^L EHWW^L VFLHQFH^L WKDW^L
LV^L DYDLODECH^L DQG^L FRQALQXHV^L WR^L UHO^L RQ^L RXWGDWHG[¶] L QDFFXUDWH^L VFLHQFH^L ZKHQ^L
VHWLQJ^L QDNLQDO^L SROLF^{\L} UHJXODW^{\L} ELRIXHOV^L SROLF^{\L}

:KDW^L DUH^L \RXU^L WKRXJKW^L RQ^L WKH^L (3\$^L UHO^L LQJ^L RQ^L RXWGDWHG[¶] L QDFFXUDWH^L
VFLHQFH^L WR^L VHW^L IHGHUDO^L UHJXODW^{\L} SROLF^{\L}"

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6HQDWU[¶] L , L WKLQN^L LWW^L WKH^L REOLJDWLQ^L RI^L WKH^L (3\$^L LQ^L WDNLQJ^L VHW[¶] L UXCHPDNLQJ^L
DQG^L RAKHULZLVH[¶] L WR^L HQVXUH^L WKDW^L LWW^L KDV^L WKH^L PRW^L XS^L WR^L GDW[¶] L REMHFWLYH^L
VFLHQW^L LF^L GDWD^L SRWLEOH^{\L}

5281'6 L

/HW^L PH^L IROORZ^L XS^L D^L OLMWH^L ELM^{\L} 7KH^L FXUHQW^L (3\$^L SURFHV^L IRU^L FRQVLGHULQJ^L RI^L
AKH^L VFLHQW^L LF^L LQIRUPDWLRQ^L XQCHUSLQQLQJ^L PDMRU^L UHJXODWLRQ[¶] L , L EHOLHM[¶] L LV^L
IODZHG^L DQG^L LWW^L XQEDODQFHG^{\L})RU^L H[DPSOH[¶] L WKH^L 6FLHQW^L LF^L \$GYLVRU^{\L} %RDUG[¶] L
RU^L WKH^L 6\$%- LV^L WR^L SURYLGH^L VFLHQW^L LF^L DGYLFH^L WR^L WKH^L (3\$^L DGPLQLWLDW^L DQG^L
&RQJUHW^{\L}

%&W^L WKHUH^L LV^L DL VLJQLI LFDQW^L ODFN^L RI^L JHRJUDSKLF^L GLYHUVW^L LQ^L WDWH^L DQG^L CRFDOL^L
DQG^L WULEDO^L UHSUHMQDWLRQ^L RQ^L WKH^L 6\$%- L &DQ^L \RX^L H[SODLQ^L WR^L XV^L ZKD^L \RXU^L
YLHZV^L DUH^L RQ^L WKH^L DJHOF^{\L} VFLHQFH^L DQG^L ZKD^L \RXU^L HQYLVRQ^L DV^L WKH^L URCH^L RI^L
DJHOF^{\L} VFLHQFH^L DW^L WKH^L (3\$"

358,77 L

6HQDWU[¶] L DV^L \RX^L DQG^L , L WDWH^L DERXW^L LQ^L RXU^L PHW[¶] L , L WKLQN^L LWW^L LPSRUWDQW^L
AR^L KOYH^L WKDW^L JHRJUDSKLFDO^L UHSUHMQDWLRQ^L EHWWHU^L UHSUHMQDW[¶] L DQG^L ++ L DQG^L
AKDW^L WKHUHV^L VRPH^L FRQIOFW^L RI^L LQHUVW^L DSSOLFDWLRQ^L ZLWK^L WKH^L 6FLHQFH^L
\$GYLVRU^{\L} %RDUG^L WKDW^L QHGL^L WR^L EH^L DQGUHW[¶] L DV^L ZHOO^{\L}

\$QG^L DOVR[¶] L LWW^L WKH^L &HDQ^L \$LU^L 6FLHQFH^L \$GYLVRU^{\L} &RPPLWHL[¶] L ZKLFK^L LV^L D^L
WDQGLQJ^L RPPLWHL^L RI^L WKH^L 6FLHQFH^L \$GYLVRU^{\L} %RDUG^{\L}

5281'6 L

&4 FRP 6HQDWH (QYLURQPHQW DQG L 3XEOLF L :RUNV L &RPPPLWTH L +ROGV L + 3DJH P + L RI L

,YH L JRW L D L FKOUW WKOW VKRZV L WKH L JHRJUDSKLF L PDNHSL RI L WKH L + !! P + L
FKOUWHLHG L 6\$% L 21 L WKH L + L PHPEHUV L WKH L PDNRUW L RI L WKH L FRPH L TURPL
(DW L RU L :HW L &RDW L WDWHM L &DQL \RX L JHW WKOW FKOUW IRU L PH L SOHDW " L ,YH L
DOVR L JRW L D L FKOUW WKOW VKRZV L WKH L QXPEHUL RI L WDWHV L WKOW KOYH L JRYHOPHQW
UHSUHMHQNDALYHV L RQ L WKH L 6\$%

+RZ L ZRXOG L \RX L EURDGHQ L WKH L JHRJUDSKLF L VFRSH L RI L 6\$% L PHPEHUV L WR L
PDNH L FHJWDLQ L WKOW WDWHV L DQG L YDULRXV L JRYHOPHQWDO L HQWLHV L DUH L
UHSUHMHQNG " L 7KH L RQ L WKH L OHW L VKRZV L WKH L EODFN L GLYHUMM L ZLWK L UHJDUG L
AIR L WKH L DFWXDO L PHPEHUV L RQ L WKH L ERDUG L DQG L WKH L RQ L WKH L ULJKW L DFWXDOO L
VKRZV L WKOW ZH L KOYH L DL JUDQG L WRADOL RI L WR L WDWHV L ZLWK L UHSUHMHQNDALRQ L IRU L
WDWH L DQG L CRFDO L XQWW L RI L JRYHOPHQW RQ L WKRH L ERDUGV

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6HQDWRU L L L L FRQI LUPHGX L LW L LV L DQ L LWXH L DV L ,YH L LQGLFDWLG L DQG L ZH L WDWHG L
DERXW LQ L \RXU L RI L LFH L WKOW L LV L LPSRUWDQW L WR L DQGUHW L WR L HQXUH L WKOW WKUHV L
FRQI LGHQFH L WKOW L DV L VFLHQFH L LV L GULYLQJ L UXCHPDNLQJ L WKOW LWW L REMHVLYH L DQG L
WKOW LWW L WAKHULHG L WR L WKH L UXCHV L WKOW DUH L DGRSWHG L E L WKH L (3\$

6R L WKLV L LV L DL YHUA L LPSRUWDQW L LWXH L WKOW QHGV L WR L EH L HYDOXDWG L DQG L
GLVFXWHG L DQG L WR L HQXUH L WKH L HI L FDF L RI L WKH L VFLHQFH L WKOW RFFXUV L DW L WKH L
(3\$

5281'6 L

:RXOG L \RX L FRPPLW WR L XV L WKOW \RX L ZRXOG L PDNH L LW L DQ L HI IRUW WR L VHH L WKOW WKH L
6FLHQFH L \$GYLVRU L %RDUG L DFWXDOO L UHICRHW L VRPH L IDLUHW L ZLWK L UHJDUG L WR L
JHRJUDSKLF L GLYHUMM L DV L ZHOO L DV L UHFRJQL LQJ L WKH L LPSRUWDQW L URCH L WKOW CRFDO L
DQG L UHJLRQDO L JRYHOPHQW L WDWH L DQG L CRFDO L JRYHOPHQW L KOYH L LQ L
GWHUPLQLQJ L RU L DW L CHDW L SDUWFLSDW LQJ L LQ L WKHM L ERDUGV L DQG L FRPPLW LRQ "

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, I L FRQI LUPHGX L , L ORRN L IRUZDUG L WR L ZRUNLQJ L ZLWK L \RX L RQ L WKOW L LWXH

5281'6 L

7KQNL L \RX L /HW PH L MXW L LQVLK L HDOL TXLFDOL ZLWK L MXW L RQ L RAKHU L LWHGX L DQG L , L
+ + L , L EHOLHYH L OLWHQHG L DL CRW WR L DQG L , L + + L ZKHWKHU L \RXUH L ZRUNLQJ L RQ L EHKOI L RI L
LQGXWULHM L ZKHWKHU L \RXUH L ZRUNLQJ L RQ L EHKOI L RI L WKH L IRONV L TURPL 2NODKRPD L
\RXU L URCH L DV L DQ L DGPLQLWLDWRL ZLWK L UHJDUG L WR L FCHDQ L DLW L ZDWHU L DQG L VR L IRUNK

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPILWTH^L +ROGV^L +3DJH[¶] +4RI^L

\$V^L WKH^L DMWRQH\ L JHCHUDQ[¶] L \RX^L UHSUHMQWKG^L WKH^L LQHJUHW^L RI^L \RXUL WDNH[¶] L ERWK^L
\RXUL WDNH^L HFRQRP\ L DQG^L \RXUL WDNH^L HQYLURQPHQW^L %XW^L MXW^L EHFDXVH^L
\RX^L DUH^L SUR[†] HFRQRLFL^L GHYHRSFPHQW^L DQG^L SUR[†] HFRQRLFL^L GHYHRSFPHQW^L
JURZAK^L GRHV^L QRW^L PHDQL^L WKDW^L \RX^L KOYH^L WR^L EH^L DQNL[†] HQYLURQPHQW^L

3UHMUYLQJ^L WKH^L HQYLURQPHQW^L DQG^L SUHMUYLQJ^L WKH^L HFRQRP[¶] L , L GRQW^L EHOLHMH^L
DUH^L PXWDOO\ L H[FOXVLYH[¶] L , L GRQW^L WKLQN^L \RXYH^L JRW^L WR^L FKRRVH^L EHWDHQ^L WKH^L
NZK[¶] L +RZ^L ZRXOG^L \RX^L EDODQFH^L HFRQRLFL^L JURZAK^L ZLWK^L PDNLQJ^L FHWDLQL^L WKDW^L
ZH^L KOYH^L FOHDQL^L DLU^L DQG^L FOHDQL^L ZDNH[¶]"

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, L WKLQN^L SDUW^L RI^L LW^L LQHJUHW^L LQ^L WKH^L WDNH^L DQG^L WKH^L SURFH^L WKDW^L WKH^L (3\$^L LV^L
VXSSRMHG^L WR^L FRQGXFW[¶] L , L NRZ^L WKDW^L VRPHWLPH^L UXCHPDNLQJ^L LVL VHQ^L DV^L
VRPHWLQJ^L WKDW^L QRW^L WHULEO\ L LPSRUWDQW^L RU^L ++ L RU^L VRPHWLQJ^L ODERULRXV[¶]

%XW^L WKH^L UHDVRQ^L UXCHPDNLQJ[¶] L WKH^L UHDVRQ^L &RQUJHW^L KDV^L VDLG^L WKDW^L \RX^L WDNH^L
++ L \RX^L RI IHL QRALFH^L RQ^L DL SURSRMHG^L UXCH^L DQG^L \RX^L WDNH^L FRPPHQW[¶] L LVL LW^L
QHGHG^L WR^L PDNH^L VXLH^L DOO^L YRLFH^L DUH^L KHDSL^L DQG^L WKDW^L WKHUH^L LVL DQ^L LQIRUPHGL^L
GHFLVLRQ^L WKDW^L UHJXODARUV^L DUH^L PDNLQJ^L EHIRUH^L WKH^L ILQDOLJH^L UXCH[¶] L EHFDXVH^L
RI^L WKH^L LPSDRW^L LW^L KDV^L RQ^L WKH^L HFRQRP[¶] L DQG^L RQ^L WKH^L HQYLURQPHQW^L LQ^L WKLV^L
LQWDQFH[¶]

6R[¶] L UXCHPDNLQJ^L LVL VRPHWLQJ^L WKDW^L ZH^L VKRXOG^L WDNH^L VHULRXOV^L DQG^L WKDW^L ZH^L
VKRXOG^L GR^L VR^L FRQVLWHQW^L ZLWK^L WKH^L IUDPHZRUN^L RXWOLQHG^L E\ L &RQUJHW^L VR^L
WKDW^L DOO^L WKRVH^L YRLFH^L DUH^L KHDSL^L WKDW^L \RXUH^L UHIIHULQJ^L WR[¶] L 6HQDARU[¶] L LQ^L ++ L LQ^L
WKH^L UXCHPDNLQJ^L SURFH[¶]

5281'6 L

7KDQN^L \RX[¶] L 7KDQN^L \RX[¶] L OU[¶] L &KDLUPDQ[¶]

%\$55\$662 L

7KDQN^L \RX^L YHU\ L PXF[¶] L 6HQDARU^L 5RXQGV[¶] L 6HQDARU^L ODUNH[¶]"

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7KDQN^L \RX[¶] L OU[¶] L &KDLUPDQ[¶] L OU[¶] L 3UXLW[¶] L HDUOLHJ^L WRGD\ L \RX^L VDLG^L WKDW^L WKH^L (3\$^L
KDV^L DQ^L LPSRUWDQW^L URCH^L LQ^L UHJXODALQJ^L FDUERQ^L GLR<sup>[LGH^L EHFDXVH^L] RI^L WKH^L + !! → L
ODQGPDU^L 6XSUHPH^L &RXUW^L UXOLQJ^L LQ^L ODWDDFKXHWW^L Y[¶] L (3\$[¶]</sup>

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH "I + L RI "

7KH L (3\$ L DGPLQLWLUDARUV L IRU L ERWK L 3UHVLGHQW L %VK L DQG L 3UHVLGHQW L 2EDPD L
FDGL L GHFLVLRQ L WKDW L FDUEQL SROOXALRQ L SRVHV L D L GDQJHU L WR L \$PHULFDQ L
RAKHUZLVH L NQRZQ L DV L WKH L (QDQJHUPHQW L)LQGLQJ L :LOO L \RX L SURPLVH L WR L
NHS L RQ L WKH L ERRNV L WKH L VFLHQWL LF L I LQGLQJ L WKDW L FDUEQL SROOXALRQ L SRVHV L D L
GDQJHU L WR L WKH L \$PHULFDQ L SXEOLF L KHDWK L DQG L ZHODUH"

358,77 L

7ZR L WKLQJV L 6HQDWL (QYLURPHQW L)LUVW L ZLWK L UHVSHFW WR L ODW L Y L WKH L (3\$ L WKH L
6XSUHPH L &RXUW L VDLG L WR L WKH L (3\$ L WKDW L WKH L KDG L WR L PDNH L D L GHFLVLRQ L + +

0\$5. (< L

7KDW L ULJKW

358,77 L

WR L GHWHUPLQH L ZKHQH L &2 L SRVHG L D L ULVNL L \$QG L DV L \RX L LQGLFDWHL Q L LQ L
+ ! ! L WKH L GLGL VR L 7KDW L LV L WKH L ODZ L RI L WKH L ODQG L WKRML WZR L FDMH L 7KHUHV L
DQ L REOLJDALRQ L RI L WKH L (3\$ L DGPLQLWLUDARUV L WR L GR L KLV L RU L KHU L MRE L LQ L IXO I LQGLQJ L
ODW L Y L (3\$ L LQ L WKDW L (QDQJHUPHQW L)LQGLQJ L TURP L + ! ! L

0\$5. (< L

6R L \RX L ZLQ L NHS L WKDW L VFLHQWL LF L I LQGLQJ L RQ L WKH L ERRNV"

358,77 L

7KH L (QDQJHUPHQW L)LQGLQJ L LV L WKH L DQG L CHHV L WR L EH L HQIRUFH G L DQG L
UHVSHFWHG

0\$5. (< L

2. L \$QG L \RX L ZLQ L QRW L UHVLHZ L WKDW L VFLHQWL LF L I LQGLQJ "

358,77 L

7KHUHV L QRAKLOJ L WKDW L , L NQRZ L WKDW L ZRXOG L FDXVH L D L UHVLHZ L DW L WKLV L SRQW

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&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLW^H^L +ROGV^L +3DJH[¶] +L|R^I L

7KDW^L YHU^{\|} JRRG^{\|} ODWD^L RXXHWW^L Y^{\|} (3\$^L PDGH^L IW^L SRWLECH^L IRU^L WDW^H^L OLN^L
&DOLIRUQLD^L DQG^L ODWD^L RXXHWW^L WR^L VHW^L KLJKH^L WDW^H^L DQG^L UHGX^H^L IRU^L WKH^L IXHO^L
HFRQR^{\|} RI^L YHKLFOHV^L XVLQJ^L WKHLU^L DXWKRULW^L XQGH^L WKH^L &CHDQ^L \$LU^L \$FW^{\|} L 7KLV^L
LV^L DL^L SRZHU^L IXOLWRRO^L IRU^L WDW^H^L WR^L UHGX^H^L HPLWLRQV^L DQG^L DGGUHW^L JOREDO^L
ZDUPLQJ^{\|}

\$V^L DL^L GLUHW^L UHGX^L RI^L WKH^L &CHDQ^L \$LU^L \$FW^L DXWKRULW^L FRPELQHG^L ZIWK^L P^{\|} L !! !! → L
)XHO^L (FRQR^{\|} /DZ^{\|} L WKH^L 2EDPD^L \$GPLQLWLDWLRLQ^L UHDFKHG^L DQ^L KLW^L RULF^L
DJUHHPHQW^L ZIWK^L WKH^L DXWRL^L LGGXWU^L V^L VXSSRUW^L WR^L LQFHDMH^L IXHO^L HFRQR^{\|}
WDQGDUG^L WR^L ↑ + ◀ ↑ L PLCHM^L SHU^L JDOORQ^L E\^L L !! L ↑ ◀

7KRVH^L WDW^H^L DQG^L UHGX^H^L WR^L UHGX^H^L RXU^L GHSHQGHQFH^L RQ^L IRUHLJQ^L RLO^L
EV^L PRUH^L WKDQ^L + L PLOOLRQ^L EDUHW^L D^L GD^{\|} SUHYHQW^L + L ELOOLRQ^L WRQV^L RI^L FDUERQ^L
SROOXWLRQ^{\|} L DQG^L VDYH^L FRQXPHUV^L PRUH^L WKDQ^L • ¶ ◀ → L WUOOLRQ^L DW^L WKH^L JDV^L SXPS^L
EHFDXW^L WKHLU^L FDU^L ZLOO^L EH^L VR^L PXFK^L PRUH^L HI^L FLFHQW^{\|}

7KRVH^L WDW^H^L DQG^L DOVR^L XQHDMKLQ^L D^L 7HOD^L UHYROXWLRQ^{\|} L FCHDQ^L HQHJJ^{\|}
YHKLFOHV^L DOD^L DFURW^L WKH^L FRQXWU^{\|} L 7HQL^L WRXVDQG^L SHRSOH^L DUH^L JRLQJ^L WR^L EH^L
HPSORVHG^{\|} L IRU^L H[DPSOH^{\|} L LQ^L 1HYDQD^{\|} L LQ^L WKLV^L WHFKQRORJ^{\|} L DUHD^{\|}

<RXW^L VDLG^L WKDW^L \RX^L ZDQW^L WDW^H^L WR^L SOD^L D^L ODW^L UCH^L LQ^L HQYLURQPHQWDO^L
UHJXODWLRQ^{\|} L ,Q^L \RXU^L L !! ¶ ↑ L WHM^L PRQ^{\|} L EHIRUH^L WKH^L +RXW^L 6FLHQFH^L
&RPPLW^H^L \RX^L ZURW^L TXRWH^{\|} L | 7KH^L (3\$^L ZDV^L QHYH^L LQH^L GHQFH^L WR^L EH^L RXU^L
QDWLRQ^L TURQWOLQH^L HQYLURQPHQWDO^L UHJXODARU^{\|} L 7KH^L WDW^H^L ZHUH^L WR^L KODH^L
UHJXODARU^{\|} L SULPDF^{\|} |

%XW^L HDUOLHU^L WRQD^{\|} L \RX^L ZRXOGW^L FRPPLW^L WR^L PDLQNDLQ^L &DOLIRUQLD^L DQG^L
ODWD^L RXXHWW^L DQG^L RAKH^L WDW^H^L DELOLW^L WR^L EH^L UHJXODARU^{\|} L VLF^{\|} L SULPDF^{\|} L DV^L
AKH^L CHDGHUV^L RI^L WKH^L HI^L IRUW^L WR^L SURW^L WKHLU^L RZQ^L WDW^H^L WR^L GR^L ZKDW^L LV^L EHWW^L IRU^L
JOREDO^L ZDUPLQJ^L LQ^L WKHLU^L RZQ^L WDW^H^{\|}

6R^L ,P^L JRLQJ^L WR^L D^L \RX^L DJDLQ^{\|} L :LOO^L \RX^L VXSSRUW^L WKH^L WDW^H^L ULJKW^L RI^L
WDW^H^L WR^L GR^L PRUH^L WR^L UHGX^H^L GHSHQGHQFH^L RQ^L IRUHLJQ^L RLO^{\|} L UHGX^H^L JOREDO^L
ZDUPLQJ^L SROOXWLRQ^{\|} L VDYH^L PRQH^L DW^L WKH^L JDV^L SXPSV^{\|} L DQG^L FUHDW^L WHQV^L RI^L
WRXVDQG^{\|} L KXQGUHG^L RI^L WRXVDQG^L RI^L MREV^L LQ^L WKH^L FCHDQ^L FDU^L MRE^L
EXVLQHW["]

&4 FRP[†] 6HQDWL (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWHL^L +ROGV^L +3DJH[¶] +LRI^L

, L WKLQN^L 6HQDWU[¶] L JHQHDOO^L WKH^L DQVZHU^L WR^L WKDW^L ZRXOG^L EH^L \HV[¶] L %W^L LQ^L
DSSOLFDWLRQ^L ZLWK^L WKH^L &DOLIRUQLD^L ZDLYHU^L WKDW^L ZDV^L GLVFXWHG^L HDUOLHU[¶] L WKDW^L
DQ^L DGMGLFDWLRU[\] SURFHUV^L WKDW^L , L FDOW^L SUHMGJH^L ZKDW^L ZRXOG^L RFFXUL^L WKHUH[¶] L \$V^L
\RX^L NORZ[¶] L SUHYLRXV^L DGPLQLWLDWLRU^L KOYH^L H\WKHU^L JUDQWHG^L RU^L GHQHG^L WKDW^L
EDVHG^L XSRQ^L D^L UHFRUG^L WKDW^L ZDV^L PDGH[¶]

, L GR^L UHSHFW^L DQG^L GR^L EHOLHYH^L WKDW^L WDWWV^L KOYH^L D^L YHU[\] L PSLRUDQW^L URCH[¶] L
:HYH^L DFNGRZOHGJHG^L WKDW^L RU^L , YH^L DFNGRZOHGJHG^L WKDW^L WRCD^L ZLWK^L UHSHFW^L
AR^L WKH^L &KMDSDHNH^L %D^L VLAJDWLQ[¶] L DV^L DQ^L H[DPSOH[¶] L \$QG^L VR[¶] L , L ZLOO^L ORRN^L DW^L
AKDW^L LWXH^L OLNH^L RAKHU[¶] L WR^L PDNH^L VXUH^L WKDW^L LWW^L UHSHFWHG^L EXW^L DOVR^L LV^L
FRQVLWHDQW^L ZLWK^L WKH^L WDWWWRU[\] LUDPHZRUN^L WKDW^L \RXYH^L RXWOLHG[¶]

0\$5. (< L

'R^L \RX^L VXSSRUW^L WKH^L ODZ^L WKDW^L VD\V^L WKDW^L &DOLIRUQLD^L KOV^L D^L ULJKW^L WR^L DV^L IRU^L D^L
ZDLYHU"

358,77 L

,W^L WDWWWRU[\] L DQG^L VRPHWKLQJ^L WKH^L DGPLQLWLDWLRU^L KOV^L DQ^L REOLJDWLQ^L WR^L GR[¶] L
6R[¶] L \HM[¶] L , L GR^L UHSHFW^L \W[¶]

0\$5. (< L

'R^L \RX^L VXSSRUW^L WKH^L FXUHQW^L &DOLIRUQLD^L ZDLYHU^L IRU^L JUHQKRXVH^L JDV^L
WDQGDUGV"

358,77 L

6HQDWU[¶] L WKDW^L ZKDW^L ZRXOG^L EH^L HYDOXOWHG^L DQG^L , L WKLQN^L \W^L YHU[\] L GLI\LFQW^L DQG^L
ZH^L VKRXOGQW^L SUHMGJH^L WKH^L RXWFRPH^L LQ^L WKDW^L UHJDUG^L LI^L FRQILUPHG^L DV^L
DGPLQLWLDWLRU[¶]

0\$5. (< L

6R[¶] L \RXUH^L TXHWDWLQJ^L WKH^L FXUHQW^L ZDLYHU^{"L} <RX^L GROW^L WKLQN^L WKH\UH^L
HOMWHDQG^L WR^L WKH^L FXUHQW^L ZDLYHU[¶]

358,77 L

:HO[¶] L WKH^L ZDLYHU^L LV^L VRPHWKLQJ^L WKDW^L JUDQWHG^L RQ^L DQ^L DQXDO^L EDVLV^L DQG^L WKH^L
DGPLQLWLDWLRU[\] ZRXOG^L EH^L UHMRQMLECH^L IRU^L PDNLQJ^L WKDW^L GHFLVLRQ[¶]

&4 FRP 6HQDWH (QYLURQPHQW DQG 3XEOLF :RUNV &RPPILWTH +ROGV + 3DJH 9 + RI

0\$5. (<

HS \$QGL VR L \RXL VD\ L \RXUH L JRLQJ L WR L UHYLHZ L W'

358,77 L

HM L 6HQDWRU

0\$5. (<

HDK \$QGL ZKHQ L \RXL VD\ L UHYLHZ L , L KHDUL XQGR L \RXL NQRZ L WKH L ULJKW L RI L
AKH L WDWHV L \$QGL , L WKLQN L WR L D L FDUERQ L H[WHQW WWDW L ++ L IAW L WURXECMRPH L
EHFDXW L REYLRXO\ L ZKOW ZHYH L KHDUG L DOL GD\ L LVL KRZ L PXFK L \RXL VSSRUW
WDWHV L ULJKW L ZKHQ L LW FRPHV L WR L WKHM L LWXHV

%W GRZ L ZKHQ L LW FRPHV L WR L WKH L ULJKW L RI L &DOLIRUQLD L RU L ODWDFKXHWW L DQG L
RAKHUL WDWHV L WR L EH L DECH L WR L UHGXFH L FDUERQ L SROOXWLQ L \RXUH L VD\ L QJ L \RXUH L
JRLQJ L WR L UHYLHZ L WWDW L 6R P\ L SURECHPL UHDOO\ L JRHV L WR L WKLV L GRXEOH L WWDQGDUG L
AKOW L LV L FUHDWHL WWDW ZKHQ L \RXL VXL TURPL WKH L 2NODKRPD L SHUSSHFWLYH L TURPL
AKH L RLO L DQG L JDV L LGXWNUV L SHUSSHFWLYH L DQG L \RXL UHSUHMHQW 2NODKRPD L \RXL
VD\ L WKH L KDH L DL ULJKW L WR L GR L ZKOW WKH L ZDQW WR L GR L LQ L WKH L WDWHV L RI L
2NODKRPD

%W ZKHQ L LW FRPHV L WR L ODWDFKXHWW L RU L LW FRPHV L WR L &DOLIRUQLD L DQG L LW
FRPHV L WR L WKH L TXHWLRQ L RI L WKRVH L WDWHV L ZDQNLQJ L WR L LQFHDMH L WKHU L
SURWHFWLRQ L IRU L WKH L HQYLURQPHQW L SURWHFW WKHU L ++ L WKHU L YLFALPL]DWLRQ L TURPL
FDUERQ L SROOXWLQ L \RXL VD\ L WKHU H L \RXUH L JRLQJ L WR L UHYLHZ

\$QGL , L WKLQN L WWDW WKH L KLWWRU L RI L WKH L DJHQF\ L LQ L JUDQNLQJ L UHYLHZ L WWDW KDH L
EHQ L CHFHWDU\ L IRU L ODWDFKXHWW L IRU L &DOLIRUQLD L DQG L RAKHUL WDWHV L WR L
LPSURYH L WKH L HQYLURQPHQW L DU L WLDO L YDOLG L 7KH L VFLHQFH L KDVQW FKDQJHG

7KH L GHZ L FODQ L HQHUV \ L WHFKORORJLHV L KDH L CRW FKDQJHG L 7KH L GDQJHU L WR L
AKH L SXEOLF L TURPL HQYLURQPHQW DOL H[SRVXUH L WR L FDUERQ L SROOXWLQ L KDV L CRW
FKDQJHG L \$QGL VR L TURPL RXU L SHUSSHFWLYH L \RXL NQRZ L ZH L ++ L ZH L DU L IHDXIXOL RI L
ZKOW DL UHYLHZ L ZRQOG L DFWDOO\ L UHMXOW LQ L \$QGL TURPL P\ L SHUSSHFWLYH L , L WKLQN L
IWW L JRLQJ L WR L CHDG L WR L \RXL XQRLQJ L WWDW ++

%\$55\$662 L

7KH L 6HQDWRU L WLPH L KDV L H[SLUHG

KWS

FT

FRP

GRF

FRQJUHWL

ODWDFKXHWW

DQG

ULJKW

RI

WWDW

SULQWVWUH

¶ + !!

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH P L RI L

0\$5. (< L

++ L ULJKW L RI L WKH L VADWHL WR L EH L DECH L WR L SURYLGH L WKDW L SURHFWLRQ

%\$55\$662 L

7KQNL IRXO L 6HQDWU L ODUNHV L ,PL JRLQJ L WR L LQURGXFL L IRU L WKH L UHFRUG L DL
UHSRUW L TURPL WKH L 1DMLRQOL (QHJW L \$WLWDQW L 'LUHFWUV L \$WRFLDMLRQ L 7KHM L
DU L WKH L VADWHL RI L LFLOV L ZKR L RYHUMH L WKH L TLQDQLDO L DWLWDQFH L SURJUDPV L IRU L
SHRSOH L WR L KHDW WKHUL KRPHM

7KH L UHSRUW L VD\VL WKDW L ZKHQ L HQHW \ L SULFHV L JR L XS L WKH L KLJKHU L HQHW \ L SULFHV L
UHMOW L LQ L T L SHUFHQW L RI L WKH L UHFLSLHQW L ZKR L JR L ZLWKRW L IRRGL IRU L DW L CHDW L DL
GD\ L T L SHUFHQW L JR L ZLWKRW L PHGLFDOL RU L GHQDOL FDU L T L SHUFHQW GLGQW L TLOO L DL
SUHMFULSALRQ L DQG L P J L SHUFHQW KDG L VRPHRH L LQ L WKHUL KRPH L EHFRPH L VLNL
EHFDXH L WKH L KRXH L ZDV L FROG L GH L WR L LQFHDMHG L HQHW \ L FRWW L 6HQDWU L
(UQWV

(5167 L

7KQNL IRXO L OU L &KDLUPDQ L \$JDLQ L \$MRUGH L *HCHUDOL 3UXLW L WKQNL IRX L IRU L
EHLOJ L KHU L WRGD L ,L ZRQG L OLNH L WR L JR L EDN L WR L VRPHWKLQJ L WKDW D L FROHDJXH L
6HQDWU L 'XFNZRUNK L PHQWLRQHG L HDUOLHU L WRGD L DQG L WKDW L WKH L 3RLQW L RI L
2EOLJDMLRQ

7KH L SURSRVDO L WR L FKDQJH L WKH L 3RLQW L RI L 2EOLJDMLRQ L XQCHU L WKH L 5)6 L LV L DQ L
H[DPSOH L RI L D L UHJXODWU L FKDQJH L WKDW ZRQG L GHVDELOL JH L WKH L SROLF V L
HQYLURPHQW L L DGRSWHG L \$QGL L ZKDW L LQWHUHVW LQJ L ZLWK L WKH L 3RLQW L RI L
2EOLJDMLRQ L ZH L KDYH L WR L VLGHV L WKDW CRUPDOO L RSSRVH L HDFK L RAKHU L WKDW
KDYH L DFWDODOO L FRPH L WRJHAKHU

6R L ERWK L ELRIXHO L SURGXFLUV L DQG L WKH L \$PHULFDQ L 3WURCHPL QWWDWHL RSSRVH L
AKLV L FKDQJH L ERWK L JURXSV L \$QGL ,L ZRQG L OLNH L WR L VXEPLW D L CHWHU L IRU L WKH L
UHFRUG L VKRZLQJ L WKH L XQLWHL RSSRVWLRQ L WR L PRYLQJ L WKH L 3RLQW L RI L 2EOLJDMLRQ L
OU L &KDLUPDQ L LI L ZH L FRQG L KDYH L WKDW HQWHUHG L LQAR L WKH L UHFRUG

%\$55\$662 L

:LWKRW L REHFWLRQ

(5167 L

\$QGL L ,GL OLNH L WR L UHVLVW WKLV L LI L IRX L FDQ L VH L RU L QR L DV L DGPLQLWLDWU L ZLQO L

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPHWLH L +ROGV L + 3DJH P ↑ L!RI

RSSRMH L FKDQJHV L WR L WKH L 3RLQW L RI L 2EOLJDALRQ"

358,77 L

6HQDWL DV L \RX L DQG L , L LGGLFDWHL + + L DV L , L LGGLFDWHL LQ L P \ L PHWQJ L ZIWK L \RX L
DQG L , L WKLQNL LQ L UHMSRQH L WR L 6HQDWL 'XFNZRUNK L HDUOLHU L WKHUHV L DL FRPPHQW
SHULRG L LQ L SURFHVL QRZ L DW WKH L (3\$ L DERXW WKH L 3RLQW L RI L 2EOLJDALRQ L , L WKLQNL
SUHMGJLQJ L \RX L NGRZ L WKH L RXAFRH L RI L WKDW SURFHVL DW WKLVL SRLQW LV L
XQZLVH

, L FDQL VDI L WR L \RX L DV L , L VDLG L WR L \RX L LQ L WKH L RI IFLH L DQV L WHSV L WKDW L , L ZRXOG L WDNL
DV L (3\$ L DGPLQLWLDARUL ZIWK L UHMSHVL WR L DQV L LWXHV L DV L IDUL DV L WKH L 5,1 L
SURJUDP L WKH L PRQLWRULQJ L RI L WKDW SURJUDP L 3RLQW L RI L 2EOLJDALRQ L DOO L WKHM L
YDULRXV L LWXHV L WKDW ZH L GLVFXW L WKH L MRE L RI L WKH L (3\$ L DGPLQLWLDARUL LV L WR L
PDNH L VXUH L WKDW WKH L WDNWH L LV L XSKHGL DQG L HQIRUFHGL DQG L QRW XQGHUPLQH

7KH L YLWDOLM L RI L WKH L 5)6 L SURJUDP L KDV L EHLQJ L CHILQHGL E \ L &RQJUHW L GDWLQJ L
EDNL WR L + !! ↑ L \$QV L WHSV L WKDW WKH L (3\$ L DGPLQLWLDARUL WDNL QHGV L WR L EHL
GRQH L LQ L VXFK L DL ZD L WR L IXUWKHUL WKH L REMHFWLYHV L RI L &RQJUHW L LQ L WKDW WDNWH L
QRW XQGHUPLQH L WKH L REMHFWLYHV L RI L &RQJUHW L LQ L WKDW WDNWH

(5167 L

:HOD L , L GR L DSSUHFLDWH L \RX L EHLQJ L REMHFWLYHV L DQG L , PL VXUH L WKDW 6HQDWL
'XFNZRUNK L DQG L , L ZLOOL ORNL IRUDUG L WR L FRQWQXLQJ L WR L HGFDWHL \RX L RQ L WKRVL
LWXHV L 6R L WKDNL \RX L YHU L PXFK

, L ZRXOG L OLNH L WR L VKRZ L DL FKDQW L RI L WKH L WDNWH L RI L , RZ L DQG L , L ZRXOG L OLNH L WR L JR L
EDNL WR L VRPH L RI L 6HQDWL &DUGLQV L FRPPHQW L DERXW ZKRL VRXOG L CHILQH L
ZKDW WKH L H[SDQGHGL CHILQWLRQ L RI L :DWHUV L RI L WKH L 8 L 6 L L V

6R L WKLV L LV L DL FKDQW L RI L WKH L WDNWH L RI L , RZ L DQG L DV L \RX L FDQL VHV L ZIWK L WKH L
H[SDQGHGL CHILQWLRQ L DV L SURYLGHL E \ L WKH L (3\$ L → L SHUFHQW L RI L WKH L WDNWH L RI L
, RZ L LV L QRZ L FRQMLGHUHG L :DWHUV L RI L WKH L 8 L 6 L 6R L L L \RX L ZHUH L LQ L DQ L DUHD L
OLNH L PLQH L 6RWAZHWW , RZ L KHUH L ULJKW GRZQ L KHUH L L , L OLYH L LQ L DL :DWHU L RI L WKH L
8 L ORXW RI L WKH L WDNWH L LV L FRYHJHG L E \ L WKH L :DWHUV L RI L WKH L 8 L 6 L

\$QG L , L EULQJ L WKDW XS L EHFDXVH L LQ L DL PRPHQW L , PL JRLQJ L WR L VKRZ L \RX L DQRAKHUL
SLFWXH L RI L WKH L FRQWHTXHQFH L RI L WKH L (3\$ L CHILQWLRQ L ZKDW D L :DWHU L RI L WKH L
8 L 6 L L V L /DW &RQJUHW L WKLV L FRPPHWLH L H[DPLQHGL WKH L VFRSH L RI L WKH L
)GHUDO L &CHDQ L :DWHU L \$FW MULVGLWLRQ L (3\$ L DQG L WKH L &RUSV L RI L (QJLQHUV L
FODLP L WRGD L HYHQ L ZIWKRW WKH L QHZ L :2786 L UXOH

KWS ↑ ↑ ZZZ FT FRP GRF FRQJUHWL RDOWDQWULS "P ↑ SULQWVWUH P + !!

&4 FRP[†] 6HQDWL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLW^H^L +ROGV^L + 3DJH[¶] ↑ L[¶] RI ↑

7KH^L FRPPLW^H^L IRXQG^L WKDW^L (3\$^L DQG^L WKH^L &RUSV^L DUH^L DOUHDG^L H[SDQGLQJ^L AKHLU^L MXULVGLFWLRQ^L XVLQJ^L WKH^L FRQHSAW^L WKDW^L WKH^L FRGLI LHG^L LQ^L :2786[¶] L[¶] WKH^L DUH^L MXWW^L GRLQJ^L LW^L E\ L^L DL^L FDMH[†] E\+ FDMH^L EDMLV[¶] L^L 7KH^L MXULVGLFWLRQDOL^L FODLPV^L WKDW^L DUH^L DOUHDG^L EHLQJ^L PDGH^L DUH^L YHUV^L WURXEOLQJ[¶]

)RU^L H[DPSCH[¶] L[¶] WKH^L 2EDPD^L (3\$^L WROG^L WKH^L SXEOLF^L WKDW^L WKH^L ZLOO^L CRW^L UHJXODWH^L SXGGCHM[¶] L^L 7KH^L ZLOO^L CRW^L UHJXODWH^L SXGGCHM[¶] L^L +RZHYHU[¶] L^L ZH^L CHDUQHG^L WKDW^L WKH^L &RUSV^L LV^L DOUHDG^L UHJXODALQJ^L SXGGCHM[¶] L^L E\ L^L FODPLQJ^L WKDW^L DL^L SXGGCH^L LQ^L DL^L JUDYHD^L SDUNLQJ^L CRW^L LV^L LQ^L TXRWHM[¶] L^L | DL^L GHJUDGHG^L ZHWDQG[¶] L^L DL^L GHJUDGHG^L ZHWDQG[¶] L^L DL^L GHJUDGHG^L ZHWDQG[¶]

7KH^L 2EDPD^L (3\$^L DOVR^L WROG^L IDUPHUV^L CRW^L WR^L ZRUW^L DERXW^L EHLQJ^L UHJXODWHG^L EHFDXVH^L RUGLQDU^L IDUPLQJ^L DFLYLYWLHV^L KDYH^L DL^L WDNWRU^L H[HPSALRQ[¶] L^L :HE CHDUQHG^L WKDW^L WKH^L &RUSV^L RI^L (QJLQHUV^L DQG^L WKH^L 'HSUAPHQW^L RI^L -XWLFH^L KDYH^L GHFLGHG^L WKDW^L SORZLQJ^L LV^L CRW^L DQ^L RUGLQDU^L IDUPLQJ^L DFLYLYWM[¶] L^L ([SDQLQ^L WKDW^L WR^L P\ L^L GHDL^L GHFDMHG^L JUDQGIDWKHU^L DQG^L P\ L^L IDWKHU[¶] L^L ZKRV^L DFLYLYWLHV^L LQ^L IDUPLQJ^L LQFOXGH^L SORZLQJ[¶]

\$FFRUGLQJ^L WR^L WKH^L 2EDPD^L DGPLQLWUDALRQ[¶] L^L DQ\ L^L SORZLQJ^L WKDW^L SXVHV^L VRLO^L LQAR^L IXURZV^L LV^L CRW^L DQ^L H[HPSW^L IDUPLQJ^L DFLYLYWM[¶] L^L EHFDXVH^L WKH^L WRSV^L RI^L SORZHG^L IXURZV^L FDQ^L GU\ L^L RXW[¶] L^L \$FFRUGLQJ^L WR^L D^L EULHI^L TLOHG^L E\ L^L WKH^L 8QWHG^L 6ADWHM^L LQ^L TXRWHM[¶] L^L | 7KH^L IXURZ^L WRSV^L QRZ^L VHUVH^L DV^L VPDOO^L PRXQNDLQ^L UDQJHV[¶] |

5LJKW^L WKHUH^L IRONW[¶] L^L | VPDOO^L PRXQNDLQ^L UDQJHV[¶] | L^L | 7KHM^L IXURZ^L WRSV^L QRZ^L SURYLGH^L FRQGLWLRQV^L WKDW^L DUH^L CRW^L FRQGXFYH^L WR^L JURZAK^L DQG^L GHYHORSPHQW^L RI^L ZHWDQG^L SODQW^L VSHFLHV[¶] L^L 7KH^L L^L DUH^L PDQ\ L^L XSODQGV[¶] | L^L HQG^L TXRWH[¶]

7KLV^L LV^L DL^L SLFAXUH^L RI^L WKHM^L VPDOO^L PRXQNDLQ^L UDQJHV^L IURP^L WKH^L JRYHUQPHQW^L H[HSHU^L UHSRUW[¶] L^L OUK[¶] L^L 3UXLW[¶] L^L ZLOO^L \RX^L FRPPLW^L WR^L PH^L WKDW^L LI^L FRQILUPHG[¶] L^L (3\$^L ZLOO^L ZRUN^L ZIWK^L WKH^L &RUSV^L DQG^L '2^L WR^L PDNH^L VXUH^L WKDW^L IHGHUDOL^L DJHQFLHV^L WRS^L WU\ LQ^L WR^L UHJXODWH^L RUGLQDU^L IDUPLQJ^L SUDFWLHV[¶]

358,77 L

4H[¶] L^L 6HQDWL

(5167 L

7KDQN^L \RX^L IRU^L WKDW^L YHUV^L FRQFLVH^L DQVZHU[¶] L^L 7KDQN^L \RX[¶] L^L OUK[¶] L^L &KDLU[¶]

%\$55\$662 L

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH ¶ ↑ RI

7KDN L \RX L 6HQDWU L (UQW L 6HQDWU L "XFNZRUNK"

'8&..:257+ L

7KDN L \RX L OU L &KDLUPDQ L OU L 3UXLW L , L MXW ZDW WR L ▲ ▲ ▲

358,77 L

HM L 6HQDWU

'8&..:257+ L

, L ZDW WR L FRPH L EDN L WR L WKLV L TXHMLRQL DJDLQ L \$Q L CH L PH L MXW WHO L \RX L , L SOD\HG L VHFRQG L EDMH L DV L ZHOD L 7KLV L LV L \RX L NRZ L WKLV L LV L DL KDQJLQJ L FXUH L EDOD L <RX L FDQ L NGRN L WKLV L RXW L RI L DL SDUN L ZWK L DL \HM L DOOL ULJKW'

:LOO L \RX L FRPPLW L \HV L RU L QR L WR L UHYHULQJ L WKH L (3\$V L FXUHQW L QWHUSUHWDWLRLQ L AKW DYLDEOCH L LQIUDWUXWKLH L VRXOG L OPLW WKH L UHTXLUHPHQW L WR L ECHQG L ELRI XHD L LQAR L RXU L IXHD L VASSO L JLYHQ L WKW L LW UXQV L FRXQHUL WR L FRQJUHMLRQDO L LQHQW'

358,77 L

, L ZOO L GRW WDH L DQ L WHSV L WR L XQHUPLQH L WKH L REMHFLYHV L DQ L WKH L WDAWH L RI L AKH L 5)6 L DV L DGPLQLWLDWRU L DV L (3\$

'8&..:257+ L

6R L DUH L \RX L FRPPLW L QJ L + + L ZOO L \RX L FRPPLW L WR L RSSRLQJ L DQ L DWHPSW L WR L PRYH L WKH L 3RLQW L RI L 2EOLJDWLRLQ L IURP L WKH L IDUPHU L WKH L VRVHDQ L SURGXHUV L WKH L FRUQ L SURGXHUV L DQ L ELRI XHD L PDQXIDRWKHUV L DZD L IURP L WKH L DQ L ARZDUG L WKH L ECHQHUV L EHFDXH L WKW L ZRXOG L EH L FRXQHUL WR L FRQJUHMLRQDO L LQHQW'

358,77 L

6HQDWU L WKW L LV L VRPHWKLQJ L DV L , YH L LQGLFDWHL L 7KHUH L LV L DQ L RSHQ L FRPPHQW SHULRG L RQ L WKW L YHUV L LWXH L \$Q L L L FRQILUPHG L , L ZRXOG L EH L GHOLQJ L ZWK L WKW L LWXH L DQ L QHG L WR L UHMSRQG L WR L WKH L FRPPHQW L WKW L KDYH L EH Q L PDGH L DV L SDW L RI L WKH L UHFRUG L

, L ZRXOG L EH L XQZLVH L WR L SUHMGJH L WKW L RXAFRH L , L FDQ L VD L WR L \RX L WKW L DQ L WHSV L WKW L , L ZRXOG L WDH L DV L DGPLQLWLDWRU L ZRXOG L EH L LQ L IXUWKHUDQFH L RI L WKH L 5)6 L DQ L GRW WR L XQHUPLQH L WKH L 5)6

&4 FRP[†] 6HQDWL (QYLURPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPHWLH^L +ROGV^L + 3DJH[¶] ↑ LRI

'8&.: 257+ L

%XW^L WKH^L FRPPHQW^L SHULRG^L KDV^L CRWKLQJ^L WR^L GR^L ZLWK^L FRQJUHWLRQDOL^L LQHGW[¶] L
(DUOLHU^L WRGD*) L\RXL^L VDLG^L WKDW^L \RX^L ZRXOG^L DELGH^L E\ L FRQJUHWLRQDOL^L LQHGW[¶] L
1RZ* L\WKH^L FRQJUHWLRQDOL^L LQHGW^L LV^L VR^L NHIS^L WKDW^L 3RLQW^L RI^L 2EOLJDALRQ^L ZLWK^L WKH^L
VR\EHDLQ^L DQG^L FRUQ^L SURGXFHUV^L DQG^L WKH^L ELRIXHO^L PDQXIDRAWUHV* L CRW^L WR^L PRYH^L
DZD\ L TURPL^L LW^L UHDUGCHW^L RI^L ZKDW^L WKH^L RSHQ^L FRPPHQW^L SHULRG^L VD\V[¶]

6R* L\RXUH^L VD\LQJ^L WKDW^L \RXUH^L ZLQLQJ^L ++ L\WKDW^L \RXU^L DQVZHU^L LV^L GR* L EHFDXVH^L
\RX^L ZRXOG^L EH^L RSHQ^L WR^L PRYLQJ^L LW^L DZD\ L TURPL^L WKH^L VR\EHDLQ^L DQG^L FRUQ^L
JURZHV* L\WKH^L IDUPHUV* L WRZDUGV^L WKH^L ECHQHUV* L L^L L\WKDW^L ZKDW^L WKH^L FRPPHQW^L
SHULRG^L ++ L L^L L\WKDW^L LV^L ZKDW^L FRPHV^L RW^L RI^L WKH^L FRPPHQW^L SHULRG^{"L}, V^L WKDW^L ZKDW^L
\RXUH^L VD\LQJ^{"L} \$QG^L WKDW^L ZRXOG^L EH^L DJDLQW^L FRQJUHWLRQDOL^L LQHGW[¶] L WKRXJK[¶]

358,77 L

6HQDWU* L, L WKLQJ^L PD\EH^L ZHUH^L ++ L\ZLWK^L UHSRHW^L WR^L FRQJUHWLRQDOL^L LQHGW^L DQG^L
WKH^L VADWVH^{* L} WKH^L LQHGW^L L DV^L IDU^L DV^L WKH^L 3RLQW^L RI^L 2EOLJDALRQ* L LV^L CRW^L DQGUHWHG^L
LQ^L WKH^L VADWVH^L LWWHOI* L 7KDW^L LV^L DL GHFLVLRQ^L DQG^L WKH^L DGPLQLWUDARU^L KDV^L EHQ^L
LQYROYHG^L LQ^L WKDW^L SURFHUV^L KLWRULFOO* L ,VW^L EHQ^L VXEHW^L WR^L PXFK^L
GLVFXWLRO[¶] L ,Q^L IDFW* L\WKH^L (3\$ L KDV^L GHQDW^L ZLWK^L WKLV^L LWXH^L EHIRUH[¶]

:KDW^L, P^L VD\LQJ^L WR^L \RX^L LV* L\WW^L WKH^L MRE^L RI^L WKH^L DGPLQLWUDARU^L WR^L HQIRUFH^L WKH^L
SURJUDP* L WR^L DGPLQLWUDARU^L WKH^L SURJUDP* L WR^L HQXUH^L WKDW^L WKH^L LQHGW^L RI^L
&RQJUHW^L DV^L IDU^L DV^L WKH^L 5)6^L LV^L XSKHOG[¶] L, L ZLQL^L GR^L WKDW^L

7R^L SUHMGJH^L WKH^L RXAERPH^L RI^L WKDW^L SDUWLFXODU^L FRPPHQW^L SHULRG^L LV^L VRPHWKLQJ^L
WKDW^L, L FDQW^L GR^L DQG^L VKRXOGQW^L GR^L DV^L WKLV^L SRLQW^L L, L ZRXOG^L QHGL^L WR^L UHSRQG^L WR^L
WKDW^L RQD\ L DMHU^L EHLOQJ^L FRQILUPHG^L DQG^L JRLQJ^L WKURXJK^L WKH^L UHW^L RI^L WKH^L
SURFHUV[¶]

'8&.: 257+ L

6R* L\RXUH^L VD\LQJ^L WKDW^L \RX^L ZRXOG^L EH^L RSHQ^L WR^L PRYLQJ^L WKH^L 3RLQW^L RI^L
2EOLJDALRQ^L DZD\ L TURPL^L WKH^L FRUQ^L DQG^L VR\EHDLQ^L SURGXFHUV^L DQG^L HWDQRO^L
PDQXIDRAWUHV^{"L}

358,77 L

,P^L VD\LQJ^L ▲ ▲ ▲

'8&.: 257+ L

&4◀ FRP↑6HQDWHL (QYLURQPHQW L DQG L 3XEOLF L :RUNV L &RPPLWVH L +ROGV L +HE 3DJH ¶ ↑HRU

,I L WKOW L VLV ZKOW WKH L ++ L L I L WKOW L VLV ZKOW WKH L RSHQ L FRPPHQW L SHULRG L VD\W L L I L
AKOW L WKH L UHGXOW L WKHQ L \RX L ZRXOG L EH L RSHQ L WR L PRYLQJ L LV L DZD\ L IURP L WKH L
IDUPHUV"

358,77 L

1R L ,PL VD\LQJ L 6HQDWRL L WKOW L DQ L DFALRQV L WDNLQ L DV L DGPLQLWLDWRU L WKOW L
ZRXOG L MHSQGLJH L DQG L HQGDQJHU L WKH L 5)6 L DV L LQWQHGL E\ L &RQJUHW L , L
ZRXOG L QW L WDNL L 7KOW L VLV GLI IJHJOW L IURP L SUHMGJLQJ L DQ L RXWFRPH L LQ L WKOW L
SDJWLFXODU L PDWPHU

'8&.:257+ L

QW L WKH L LQWQH L RI L &RQJUHW L VLV WR L NHSLWKH L 3RLQW L RI L 2EOLJDALRQ L ZLWK L WKH L
SURGXFLHV

358,77 L

7KOW L VRPHWKLQJ L ,PL QW L DZDUH L RI L 6HQDWRL

'8&.:257+ L

2.◀ L :HO L CHAW L PRYH L RQ L WR L ++ L ,PL YHU\ L FRQFHQHG L DQG L ZHOO L IROORZ L XS L ZLWK L
AKLV L LQ L WKH L IXXUH L /HW L JR L WR L VDIH L GULQNLQJ L ZDWHU L , L VLV RQ L RYHUVLJKW L
JRYHUGPHQW L ++ L , L VDW RQ L *RYHUGPHQW 2YHUVLJKW FRPPLWVH L LQ L WKH L +RXVH L
ZKHUH L LQ L D L ELSJWLVDQ L PDQQHU L ZH L H[SORUHG L ZKOW KDSHQHG L LQ L)OLQW L
OLFKLJDQ

\$QG L , L ZDV L DFWDODO\ L IODEEHWDWVHG L HDUOLHU L WRGD\ L ZKHQ L LQ L UHMSQW L WR L P\ L
FROHDJXH L 6HQDWRL &DUGLQ L ZKHUH L \RX L EHOLHYH L WKHUHV L DQ L VDIH L CHYHDL RI L
CHDG L WKOW FKLOGUHQ L FDQ L FRQXPH L <RX L UHMSQWHG L E\ L VD\LQJ L DQG L , L TXRWH L
| 6HQDWRL WKOW L VLV QW L VRPHWKLQJ L , YH L UHMLHZHG L RU L NQRZ L DERXW L , L EHOLHYH L
AKHUHV L VRPH L FRQFHQ L EXW L , L KDYH L QW L ORRNHG L LQW L WKH L VFLHQW L LF L UHMHDUFK L
RQ L WKOW |

<RXUH L DERXW L EHFRPH L WKH L (3\$ L DGPLQLWLDWRU L <RXUH L VHNLQJ L WR L EH L WKH L
(3\$ L DGPLQLWLDWRU L DQG L \RX YH L QW L ORRNHG L LQW L WKH L LWXH L RI L CHDG L LQ L RXU L
GULQNLQJ L ++ L LQ L RXU L GULQNLQJ L ZDWHU L VXSSO\ " L , L WKLQN L WKOW L WKOW L VLV VRPHWKLQJ L
HVSHFLDOO\ L LQ L WKH L DMHUPDK L RI L)OLQW L LV L ++ L LV L D L VHULRXV L RYHUVLJKW RQ L \RXU L
SDJW

KWS ↑↑ ZZZ FT FRP↑ GRF↑ FRQJUHWLRQDQWUDQWULSAW "¶ ↑ SULQWWUXH ¶ + !!

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWTH^L +ROGV^L + 3DJH[¶] ↑↑RI ↑

+DYH^L \RX^L HYHQ^L WAGLHG^L WKH^L)OLQW^L ZDWHU^L FULVLV^L LQ^L SUHSULQJ^L IRU^L WKLV^L
KHDULQJ^{"L} \$QG^L GR^L WKH^L QDPHV^L ODU\ L *DGH^L DQG^L 6XVDQ^L +HGPDQ^L ULQJ^L D^L EHOL^L
\R^L \RX^{"L}

358,77 L

7KH^L VIWWDWLQ^L LQ^L SRLQW^L DV^L, L LQGLFDWHG^L HDUOLHU^{"L} WKH^L (3\$^L VKRXOGYH^L DRWHG^L
PRUH^L H[SHGLWLWXO\ L LQ^L UHVSQGLQJ^L WR^L)OLQW^L DQG^L GLG^L CRW^L 7KHUH^L ZDV^L
LQGLFDWLQ^L DW^L WKH^L UHJLRQDO^L OHYHD^L WKDW^L WKHUH^L ZHUH^L FRQFHQW^L DQG^L WKHUH^L ZDV^L
CRW^L D^L UHVSQMH^{"L}

\$QG^L, L WKLQN^L WKDW^L WKH^L (3\$^L EHDUV^L UHVSQMLELOM^L IRU^L ZKDW^L KDSHCHG^L LQ^L)OLQW^L
DQG^L ZRXOG^L VHN^L WR^{"L} LQ^L WKH^L IXAUXH^{"L} DYRLG^L WKRVH^L NLQG^L RI^L VIWWDWLQV^L E\ L EHLOQJ^L
PRUH^L SURDHALYH^L WKURXJK^L WKH^L UHJLRQDO^L DGPLQLWLDWRUV^L DQG^L WKH^L WWDWH^L DQG^L
PXQLFLSDOLWLHV^L LQ^L HQXULQJ^L WKH^L TXDOLM^L RI^L RXU^L GULQNLQJ^L ZDWHU^{"L}

'8&.:257+ L

\$V^L (3\$^L DGPLQLWLDWRU^{"L} ZLOO^L \RX^L FRPPLW^L WR^L DSSRLQW^L QJ^L D^L SHUPDQH^L
UHJLRQDO^L DGPLQLWLDWRU^L WR^L WKH^L OLGHW^L UHJLRQ^L WKDW^L ZLOO^L EH^L EDVHG^L RXW^L RI^L
&KLFDJRL^L EXW^L WKH^L FRYHU^L OLFKLJDQ^{"L}

:H^L KOYH^L LWXHV^L ZLWK^L OHG^L LQ^L *DOHMEUXH^{"L} ,OOLGRV^{"L} L IRU^L H[DPSOH^{"L} \$QG^L ZLOO^L
\RX^L JLYH^L WKH^L UHVSQMLELOM^L DQG^L WKH^L DELOM^L WR^L DRW^L SURDHALYHO^L VR^L WKDW^L
AKH^L FDQ^L WHS^L LQ^L ZKHQ^L WKH^L VHH^L WKDW^L WKH^L WWDWH^L LV^L CRW^L GRLQJ^L LWW^L MRE^L LQ^L
SURWHRALQJ^L WKH^L VDIHL^L ZDWHU^L GULQNLQJ^L VXSSOV^L IRU^L LWW^L FLWLJHQ^{"L}

358,77 L

\$V^L \RX^L NQRZ^{"L} 6HQDWRU^{"L} WKH^L (3\$^L ++ L DQG^L WKH^L DQVZHU^L LV^L \HM^{"L} 7KH^L (3\$^L KDV^L
HPHJHOF^L RUGHU^L DXVKRULM^L WR^L UHVSQG^L WR^L VIWWDWLQV^L OLNH^L \RX^L GHMFULEHG^{"L}
\$QG^L, L WKLQN^L WKH^L (3\$^L VKRXOG^L WHS^L LQ^{"L} LQ^L WKRVH^L VIWWDWLQV^L LQ^L D^L YHU\ L
PHDQLQJ XOL^L ZD\

'8&.:257+ L

7KDQN^L \RX^L YHU\ L PFK^{"L}, L ZRXOG^L OLNH^L WR^L LQWURGXFW^L IRU^L WKH^L UHFRUG^L DQ^L DUWLPCH^L
IURP^L WKH^L 2NODKRPDQ^L E\ L 5LFN^L *UHQ^{"L}

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7KDQN^L \RX^L YHU\ L PFK^{"L}, L ZRXOG^L OLNH^L WR^L LQWURGXFW^L IRU^L WKH^L UHFRUG^L DQ^L DUWLPCH^L
IURP^L WKH^L 2NODKRPDQ^L E\ L 5LFN^L *UHQ^{"L}

&4 FRP⁶HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPLW^L +ROGV^L + 3DJH[¶] ↑L RI ↑

\$QG^L WR^L UHDQ[¶] L LW^L VDW[¶] L -< ' L 6ALRQJ[¶] L 'LUHWU^L RI^L WKH^L 6WDWH^L :LOGLIH^L
&RQJUHWDLRQ^L 'HSUWPHQW^L VDW^L RI^L \$MRUHV^L *HQHUDO^L 3UXLWW[¶] L TXRW^L
| \$MRUHV^L *HQHUDO^L 3UXLWW^L KDV^L EH^L QL^L DL^L UHDQ^L JRRG^L SDUWCHU^L DQG^L DOO^L LQ^L
PDNLQJ^L VXUH^L ZH^L KDYH^L DGHDXWH^L SURWHLRQV^L LQ^L SODFH^L IRU^L WKH^L TXDOUW^L DQG^L
TXDOUW^L RI^L ZDWHU[¶] L VDLG^L 6ALRQJ[¶] | 6KRL SUHYLRXVO^L CHDGL WKH^L 2NODKRPD^L
:DWHU^L 5HMRXUFHV^L %RDUG^L DQG^L ZDV^L 6WDWH^L 6HFLHOU^L RI^L WKH^L (QYLURQPHQW^L
, L KDYH^L QHYHUL VHW^L KPL^L SXW^L XV^L LQ^L DL^L SRWHLRQ^L ZKHUH^L ZH^L KDG^L WR^L FRPSURPLVH^L
DQWKLQJ^L WR^L SURWHLW^L WKH^L ZDWHU^L RI^L 2NODKRPD^L | L 6HODWU^L %RRJPQD["]

%22=0\$1 L

7KDN[¶] L OUN[¶] L &KDLUPDQ[¶] L \$QG^L, L ZDQW^L WR^L JR^L WKURXJK^L ++ L DJDLQ[¶] L REYLRXVO[¶] L
&RQJUHWDQDQ^L LQ^L WKH^L GLWULFW^L ZLWK^L WKH^L \$UNDQDV[¶] L 2NODKRPD[¶] L ,OOLRLV^L ULYHUL^L
VWWDWL[¶] L , L ZDV^L HOHWHG^L LQ^L DL^L VSHFLDO^L HOHWLRQ^L LQ^L + !! !! ¶ L DQG^L LQHULWHG^L WKLV[¶] L
7KLV^L KDV^L EH^L QL^L JRLQJ^L RQ^L IRU^L DERXW^L WHQ^L VHUV[¶] L ,Q^L + !! !! ¶ L TURPL WDW^L WLPH^L RQ^L
XQALO^L UHFHQW^L ZMH^L SUREDEO^L ZRUNHG^L RQ^L WKLV[¶] L LW^L VHPV^L OLNH^L HYHU^L ZHN[¶]

%XW^L ZDW^L KDSHQHG^L ZDV[¶] L LQ^L + !! !! T 6KRL (3\$^L FDPH^L RXW^L DQG^L VDLG^L WDW^L WKH^L
WADQDUG^L ZDV^L VXF^L WDW^L E\ L + !! ¶ T 6KRL ULYHUL QHGHG^L WR^L EH^L ++ L KDYH^L
DMDLQPHQW^L RI^L < !! T → L WADQDUG^L RI^L SKRVSURXV[¶] L \$UNDQDV^L ZRUNHG^L YHUV[¶] L
YHUV^L KOU[¶] L FKDQJHG^L RXW^L DOO^L RI^L LW^L WUDPHQW^L SODQW^L LQ^L WDW^L DUHD^L L 7KDW^L RCH^L
RI^L WKH^L IDWHLW^L JURZLQJ^L DUHDV^L LQ^L WKH^L FRXQWU[¶]

\$JDLQ[¶] L \RX^L NQRZ[¶] L WKH^L UDWHSD\HUV^L SD\ L IRU^L DOO^L WDW[¶] L KDXCHG^L RXW^L FKLFNHL OLWHU^L
DQG^L DOO^L WKRVL NLOG^L RI^L WKLQJ[¶] L DQG^L PDGH^L DL GUDPDWLF^L LPSURYHPHQW^L LQ^L WKH^L
DMDLQPHQW^L L 7KH^L SURECHPL ZDV[¶] L WKURXJK[¶] L \$UNDQDV[¶] L DQG^L \RX^L PHQWLRQHG^L
DJDLQ[¶] L P\ L JRRG^L IULHQ[¶] L 6HODWU^L %RRNU[¶] L DQG^L KH^L LVL DL JRRG^L IULHQ[¶] L
PHQWLRQHG^L DL CRW^L DERXW^L 2NODKRPD[¶] L WKLV^L DQG^L WDW^L L \$UNDQDV^L QHGHU^L DJUHHG^L
AR^L DQ^L RI^L WDW^L

6R^L WKH^L ZHUH^L JRLQJ^L IRUZDUG^L EXW^L WKH^L THOW^L OLNH^L WKH^L FRXOG^L QRW^L READLQ^L
AKH^L < !! T → L WADQDUG^L EHFDXW^L WKH^L ILUW^L QDWLQDO^L ULYHUL LVL LQ^L \$UNDQDV[¶] L WKH^L
%XIDOR^L 5LYHUV[¶] L DQG^L LW^L ZDV^L QRW^L DW^L < !! T → < L \$QG^L LW^L SULWLG[¶] L 6R[¶] L ZHOW^L ZLWK^L
JRRG^L IDWKL[¶]

,Q^L + !! ¶ !! L + + L LQ^L + !! !! ↑ 6KRL EHOHMH[¶] L WKH^L DMRUHV^L JHQHUDO^L LQ^L 2NODKRPD^L VXHG^L +
VXHG^L \$UNDQDV[¶] L 7KDW^L ZDV^L ++ L DQG^L \RX^L FDQ^L FRUHRW^L PH^L L L ,PL ZURQJ^L RQ^L
VRPH^L RI^L WKHM^L WKLQJ^L ++ L EXW^L LQ^L + !! ¶ !! 6KRL WDW^L FDMH^L ZDV^L ++ L ZDV[¶] L DOO^L RI^L WKLV^L
ZDV^L SXW^L LQ^L SODFH^L EXW^L WKH^L IHGUDO^L MGJH^L QHGHU^L UXCHG^L RQ^L LW^L 6R^L LW^L RSHQ[¶]

KWS ↑↑ ZZZ FT FRP GRF FRQJUHWL RDOWDQWULS "¶" L SULQWULXH ¶ + !!

&4 FRP[†] 6HQDWH^L (QYLURQPHQW^L DQG^L 3XEOLF^L :RUNV^L &RPPLWTH^L +ROGV^L + 3DJH[¶] ↑ L RI ↑

:HL IDWW^L IRUDUG[¶] L + !! ¶ T L LV^L DUULYLOJ[¶] L \$UNDQMDVL GRHV^L WLOOL^L QRM^L DJUH^L WKOW^L
AKH^L ¶ !! T → L WDQGDUGL^L LV^L WKH^L DSSURSULDWH^L RQH[¶] L VR^L WKH^L ZHUH^L VTXDULQJ^L RI L
JHWLQJ^L UHDGV^L WR^L VXL^L HDK^L RAKH^L DJDLQ[¶] L \$QGL \$MRUQH[¶] L *HQHUDO^L 3UXLW[¶] L
\$MRUQH^L *HQHUDO^L OF'DQLHO[¶] L DL 'HPRFUDW^L LQ^L P\ L WDWH[¶] L JRM^L WRJHAKH^L DQG^L
VDLG[¶] L KHV[¶] L \RX^L NQRZ[¶] L QW^L QRM^L ZDWH^L D^L WRQ^L RI L PRQH^L ZLWK^L ODZ\HUV[¶]

/HW[¶] L \RX^L NQRZ[¶] L XVL^L VFLHQFH^L DQG^L WKLQJV^L OLNH^L WKLVL^L WR^L ILJXUH^L WKLVL^L RXW^L L 6R^L
AKH^L FKRVL^L DL GHXWUDO^L VWH[¶] L %\ORU^L 8QLYHUVW[¶] L ZKLFK^L KDV^L DQ^L H[FLDOH^L
ZDWH^L GHSDUWPHQW[¶] L 7KH^L FDPH^L LQ[¶] L GLGL^L DL VAXG^L DQG^L WKHQ^L FDPH^L EDPN^L DQG^L
VDLG[¶] L !! T → L LV^L WDQGDUGL^L DQG^L ULJKW^L QRZ^L WKH^L WDWH^L DU^L OLYLQJ^L ZLWK^L WKOW^L

6R[¶] L LW^L UHDOO[\] L ZDVL ++ L LW^L ZDVL DL WUHPHQGRXV^L HI IRUW[¶] L WRRN^L DL ORQJ^L WLPH[¶] L DQG^L LW^L
ZDVL DL YHUV[¶] L YHUV^L GLIILFXOW^L VVXDWLRQ[¶] L 6R[¶] L \RX^L NQRZ[¶] L , L DSSODXGL^L \RX[¶] L , L ZDQW^L
AKW^L SXW^L LQ^L WKH^L UHFRUGL^L DL OHWWH^L TURPL^L RXU^L IRUPHUL^L \$MRUQH^L *HQHUDO^L OF'DQLHO^L
AKOW^L DJDLQL^L RXWOLQHV^L WKLVL^L DQG^L ZDVL YHUV[¶] L YHUV^L FRPSOLPHQWNU^L RI L WKH^L
\$MRUQH^L *HQHUDO[¶]

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:LWKRXW^L REMHWLRQ[¶]

%22=0\$1 L
7KDN^L \RX[¶] L /HW^L PH^L MXW^L TXWH^L RQH^L RI L WKH^L ILQDOL^L SDUDJUDSKV[¶] L | 5HFRQW^L SUHW^L
DFFRXQW^L UHDUGLQJ^L WKHM^L HI IRUW^L XQIDLUO[\] PLVFKDUDWHUL]H^L WKH^L ZRUN^L WKOW^L
ZDVL GRQH^L E\ L *HQHUDO^L 3UXLW^L DQG^L KLVL WHPD[¶]
+HL ZDVL DL WDXQFK^L GHIIHQHUL^L RI L VRXQG^L VFLHQFH^L DQG^L JRRGL^L SROLF\ L DV^L
DSSURSULDWH^L WRROV^L WR^L SURWHFW^L WKH^L HQYLURQPHQW^L RI L WKLVL^L WDWH[¶] L , L VDZ^L ILUVWKOQG^L
KRZ^L *HQHUDO^L 3UXLW^L ZDVL DEOH^L WR^L EULGH^L SROLFDO^L GLYLGHV^L DQG^L PDQDJH^L
PXOWLSOH^L DJHDF\ L DJHQDV^L WR^L UHDVK^L DQ^L RXWFRPH^L WKOW^L ZDVL KHUDOCHG^L E\ L
PRW^L FUHGLECH^L REVHUYHUV^L DV^L ERWK^L SRVWLYH^L DQG^L KLWRULF[¶] |

\$QGL , L WKLQJ[¶] L DJDLQ[¶] L DV^L VRPHERG^L WKOW^L ZDVL LQWLPDWHO[\] L LQYROYHG^L LQ^L WKOW[¶] L
PRUH^L LQYROYHG^L WKDQ^L , L ZDQW^L WR^L EH^L LQ^L WKLQJV[¶] L WKOW^L LW^L UHDOO[\] L ZDVL DL KHURLF^L
HI IRUW^L E\ L \RXUHDI^L DQG^L WKH^L SHRSOH^L LQ^L \$UNDQMDVL WU\ LQJ^L WR^L UHROYH[¶] L \RX^L
NQRZ[¶] L DL GLIILFXOW^L VVXDWLRQ[¶]

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7KDN^L \RX[¶] L 6HQDWRU[¶]

&4 FRP 6HQDWL (QYLURPHQW DQG L 3XEOLF L :RUNV L &RPPLWHL +ROGV L + 3DJH ¶ ↑ L RI

%22=0\$1

7KQNL \RX L 7KQWL UHDQO\ L DQO L , L KOYH L OU L &KOLU

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7KQNL \RX L YHUV L PXFK L 6HQDWU L 6HQDWU L 6XOOLYDQ"

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7KQNL \RX L OU L &KOLUPDQ L DQGL *HQHUDO L 3UXLW L , L ZDQWHL WR L IRFXV L RQ L ++ L
IRX L NQRZ L , L WDQH L HDQH L D L QXPEHUL RI L XVL WDQH L HDQH L DERXW WKH L
IUXWUDLRQ L WKOW WKH \$PHULFDQ L SHRSCH L KOYH L ZLWK L WKH L (3\$ L :H L WDQH L
DERXW DQJHU L 6HQDWU L (UQW WDQH L DERXW IHDU L , L EHOLYH L LW HWHQV L WR L D L
FRXSCH L RI L UHDVRQV L XQGHUO\ LQJ L WKOW

2QH L LV L WKH L DJHQF V L FXUHQW V L IHHQV L WKOW L LW L HPSRZHUHG L WR L UHJXODW L OLWHDQO\ L
HYHUV L QRN L DQGL FUDQQ V L RI L \$PHULFDQ L OLIH L \$QGL UHDQWHL WR L WKOW L WKH L VHP L
AR L KOYH L YHUV L OLWHDQ L UHSHFWV L IRU L WKH L UXCH L RI L ODZ L 6R L CHW PH L WRXFK L RQ L WKRVH
6HQDWU L (UQW WDQH L DERXW WKH L :2786 L UXCH L DQGL WKH L ++ L OLWHDQO\ L WKH L
(3\$V L FODLPHG L WKH L DELOLW L WR L UHJXODW L SXGGCHV L \$V L D L WDQH L ZLWK L ++ L SUH
:2786 L E L WKH L ZD V L ++ L ↑ L SHUFHQW RI L \$PHULFDV L ZHWDQGV L LQ L \$ODMDQ L ZH L
KOYH L YHUV L VLJQL L FDQW L FRQFHQV L DERXW WKLV

%W L ZDQWHL WR L DFWDOO\ L DQGUHW L DQ L HDQHUL FRPPHQW L E L 6HQDWU L
:KUWKRXVH L ZKHUH L KH L VDLG L WKOW WKHUV L CRWKLQJ L LQ L \RXU L UHFRUG L WKOW
VKRZV L WKOW \RX L KOYH L WKH L EDFNJURXQG L WR L KHD L \$PHULFDV L LVKLQJ L LQGXWU V

:HO L , L FRXOGQW L GLVDUJUH L PRUH L ZLWK L 6HQDWU L :KUWKRXVH L ZKRV L DL TULHQG L
DQGL FROHDJXH L O L WDQH L KOV L DL LVKLQJ L LQGXWU V L OLNH L 5KRCH L , VODQGV L , WL D L
OLWHDQ L ELJJHU L 6L M L SHUFHQW RI L DQO L WKH L VHD L OLIH L WKOW L FRQVLGHUEO V L ELJJHU L
7KQNL \RX L OU L &KOLUPDQ L ZRQGL \RX L SODMH L DFNRZOHGJH L WKOW IRU L WKH L
UHFRUG

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:WK L QR L REMHWLRQ

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&4 FRP 6HQDWH (QYLURQPHQW DQG L3XEOLF :RUNV &RPPHWLH +ROGV + 3DJH ¶ ↑ L RI

\$OPRWL F !! L SHUFQW RI L DOOL VHDIRGL KOUHMWHGL LQL WKH L 8QWLHG L 6ADWHV L FRPHV L
IURPL WKH L ZDWHUJL RI L \$ODMD L DQG L IWL FRQVLGHJHG L WKH L EHWW L PRW
VXWDLODEOH L EHWW PDQDJHG L IURPL DQ L HQYLURQPHQDO L WDQGSRLQW L ILVKHUJ L LQ L
AKHL ZRUOG L \$QGL \RX L NQRZ L ZKOW WKH L QXPEHUL RQH L LWXH L WKH L WRS L LWXH L RI L
AKHL ILVKHUPHQ L RI L \$ODMD L LV" L (3\$ L RYHUUHDFK

6R L QW PH L JLYH L \RX L D L VSHFLILFL H[DPSCH L 7KLV L LV L D L UHJXODWLQ L ,W L ± !! L
SDJHV L RQ L \$PHULFDV L ILVKHUPDQ L WKH L XQALPDWH L VPDOO L EXVLGHWPHQ L DQG L
ZRPHQ L 7KLV L DFWDOO L UHTXLUHV L + + L HYHUV L ILVKHUPDQ L LQ L \$ODMD L FRPPHUFDO L
ILVKHUPDQ L UHTXLUHV L D L GLVFKOUJH L SHUPLW WR L OLWUDOO L KRVH L RI L WKH L GHFN L RI L D L
VKLS

7KLQNL DERXW WKDWH L , I L \RXLH L JXWLQJ L D L ILVK L DQG L ILVK L JXW L RU L SLHFM L RI L D L ILVK L
IDOO L RQ L WKH L GHFN L RI L \RXUL VKSL DQG L \RX L KRVH L LW GRZQ L ILVK L EDFN L LQNR L WKH L
ZDWHU L RI L WKH L RFHDQW L \RX L QHGL D L SHUPLW L ± !! L SDJHV L 7KLV L LV L WKH L NLQG L RI L
AKLQJ L ZKHUH L WKH L WUXW EHWZHQL \$PHULFDQV L DQG L WKH L (3\$ L KDV L HURCHG L VR L
PXFK L EHFDXVH L RI L WKHMH L NLQG L RI L LWXH

, I L FRQILUPHG L ZLOO L \RX L ZRUN L ZWK L PH L DQG L RAKHUV L RQ L WKLVL FRPPLWHL WR L
PDNH L VXUH L WKDW WKHMH L NLQG L RI L UHJXODWLQV L DUH L EDDQFLQJ L HQYLURQPHQDO L
QHGV L ZWK L MREV L WKDW DUH L VR L LPSRUWDQW L <RYH L PHQALRHG L LW DV L D L FRW L
:LOO L \RX L ZRUN L ZWK L XV L RQ L WKDW DQG L ZRXOG L \RX L FDUH L WR L FRPPHQW RQ L D L
UHJXODWLQ L OLNH L WKLV" L)LVK L EDFN L LQNR L WKH L RFHDQ L UHTXLULQJ L D L SHUPLW

&RQJUHW L EV L WKH L ZD\ L KDV L HWHQHG L WKLVL WZLFI L PHDQLQJ L WUHG L WR L + + L WKH L
LPSCHPHQDWLRQ L RI L WKLV L 6R L WKHUV L ELSDUWLDQ L DJUHPHQW WKDW ZH L QHGL WR L
GR L VRPHWKLQJ L DERXW WKLVL RYHUUHDFK L :RXOG L \RX L FDUH L WR L FRPPHQW RQ L
AKLV"

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6HQDWRU L , L WKLQNL IWL H[HPSODU L RI L D L ODFN L RI L SURLUW L , L PHDQ L ZH L KOYH L
PDQ L + + L OLNH L , L LQGLFDWHG L HDUOLHU L + !! L SHUFQW RI L RXUL FRXQWU L LV L LQ L QRQ L
DWDLOPHQW XQGHU L WKH L \$1\$46 L SURJUDP L :H L KOYH L RYH L ¶ T !! L FLUFOH L VVWHV L
LQ L WKLVL FRXQWU L WKDW QHGL DWKHQWLQ L WR L PRYH L WKRVH L DUHDL LQNR L UPHGLDWLRQ L
DQG L UHVARUH L WKRVH L DUHDL IRU L HQYLURQPHQDO L UHODWGL LWXH

\$QGL VR L , L WKLQNL LQ L VRPH L UHSRHWL ZKOW \RX L FLW L WKHUH L LV L MKW L PLWHG L
SURLUWLM L RI L WU LQJ L WR L IRFXV L RQ L VRPHWKLQJ L OLNH L WKDW DV L RSSRVHG L WR L
IRFXVLQJ L RQ L WKHMH L RAKHUL DUHDL WKDW ZLOO L UHDOO L LPSURYH L WDQJLEO L WKH L
HQYLURQPHQDO L SURWHLWLRQV L IRU L RXUL SHRSCH L DFURW L WKH L FRXQWU

KWS ↑ ↑ ZZZ FT FRP GRF FRQJUHWLRQDWLQJULSAW "¶ ± SULQWVWUH ¶ + !!